



ALABAMA
PUBLIC
HEALTH



Annual Report

2022

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A Letter from the State Health Officer

The Honorable Kay Ivey
Governor of Alabama
State Capitol
Montgomery, Alabama 36130

Dear Governor Ivey:

It is my pleasure to present the Annual Report of the Alabama Department of Public Health (ADPH) for 2022. This report outlines the challenges and accomplishments made by our resilient employees.

Public health's response to the Coronavirus Disease 2019 (COVID-19) pandemic was again a primary focus in the department's activities for much of the year, as COVID-19 testing clinics and immunizations were offered in all county health departments. Tragically, the pandemic has claimed the lives of more than 21,000 Alabamians. Although statistics are not finalized, it is expected that for the third consecutive year, Alabama will record more deaths than births, which is largely linked with the pandemic. In January, a surge in the dominant and highly transmissible COVID-19 Omicron variant resulted in the highest daily average number of COVID-19 cases, but with advances in vaccinations, boosters, testing, and therapeutics, cases of the milder variant did not result in a higher number of deaths.

The COVID-19 pandemic has underscored the importance of laboratory testing for Alabama residents in enhancing our response to existing and emerging public health threats. The state-of-the-art Prattville laboratory, which relocated and opened in 2020, allows for cutting-edge technology in areas ranging from genetic disorder screening to outbreak testing and investigation, capabilities which are invaluable in safeguarding the public's health. Due to the surge in COVID-19 cases in January, the long-delayed dedication of the Donald E. Williamson, M.D., State Health Laboratory was held virtually.

The pandemic brought to light the health inequities and barriers faced by many people with chronic illnesses, people with a range of disabilities, the elderly, members of racial and ethnic minorities, rural residents, and other underserved people who lack access to healthcare. To build and maintain a healthy state, we must continue our efforts to eliminate persistent health disparities in communities at highest risk and work to modify risk factors that lead to chronic disease.

Infant mortality remains a significant challenge. African American mothers in Alabama continue to have the highest infant mortality

rate, more than twice the rate in white mothers. We must continue our commitment to prevent infant deaths by promoting evidence-based initiatives. While Alabama's infant mortality rate increased in 2021, it was noted that decreases occurred in the percentage of low weight births, the percentage of births with no prenatal care, and the record low percentage of births with maternal smoking.

Concerted efforts have brought an end to a hepatitis A public health emergency which was declared in 2018. In mid-year, rapid interventions in response to an mpox outbreak helped mitigate the effects of this formerly rare infectious disease, as mpox vaccinations were made available statewide. New technologies have enabled improved data gathering and monitoring, especially now that Alabama can now collect previously inaccessible hospital discharge data. Home self-collection kits and laboratory-based testing allow individuals to test for sexually transmitted infections or HIV, find out their results in their own home or other private location, and be connected to care as appropriate. A redesigned website also serves as a valuable tool in health outreach and education.

In October, the Children's Health Insurance Program celebrated its 25th anniversary of providing better access to healthcare for children and teenagers and greater financial protection for Alabama families. Before the program's initiation, at least 15 percent of Alabama's children were uninsured. Alabama's Children's Health Insurance Program has provided excellent comprehensive health coverage for more than 1.6 million children in the state in the past quarter century.

The pandemic has been a demanding yet rewarding experience, and I am very proud of how Public Health has adapted to initiate services along with our traditional services. With our compassionate, competent, and dedicated staff, we remain committed to providing needed services, assuring high quality healthcare for all Alabamians, and fulfilling our mission of promoting, protecting, and improving the health of all individuals and communities in the state.

Sincerely,



Scott Harris, M.D., M.P.H.
State Health Officer



Table of Contents

Mission

To promote, protect, and improve Alabama's health

Vision

Healthy People. Healthy Communities. Healthy Alabama

Core Values

Excellence – We believe in providing the highest quality services to our clients. We believe that all clients should be served with compassion, empathy, fairness, and respect.

Integrity – We believe our employees should be professional, competent, honest, and knowledgeable; maintaining the highest level of integrity, accountability, confidentiality, and concern for our clients. We believe in always striving to maintain the public trust.

Innovation – We believe that we should demonstrate the ability to adapt to change and to be flexible in our approach to solving problems and providing services.

Community – We believe that we should build and maintain internal and external partnerships to address public health challenges including effectively utilizing resources, solving problems, and building relationships.

1

Centralized
Billing Unit

2

Bureau of
Children's
Health Insurance

3

Bureau of Clinical
Laboratories

6

Bureau of
Communicable
Disease

15

Office of
Emergency
Medical Services

17

Bureau of
Environmental
Services

19

Bureau of Family
Health Services

27

Office of Field
Operations

29

Bureau of
Financial Services

31

Office of
Informatics and
Data Analytics

32

Governmental
Affairs and
Community
Relations

33

Bureau of Health
Provider
Standards

35

Center for
Health Statistics

37

Office of
HIV Prevention
and Care

38

Bureau of Home
and Community
Services

40

Office of
Human Resources

41

Bureau of
Information
Technology

44

Bureau of
Prevention,
Promotion,
and Support

50

Office of
Program Integrity

51

Office of
Radiation Control

53

County Health
Department
Services

54

Public Health
Districts Map

55

ADPH
Organizational
Chart

Centralized Billing Unit

The Centralized Billing Unit (CBU) exists to provide statewide county support for claim corrections, credits, and resubmissions to recover the maximum amount of revenue owed to the department. CBU also provides administrative services to ensure compliance and integrity with all insurance payer sources as well as local, state, and federal requirements. CBU's responsibilities include the following:

- Provider enrollment
- Re-enrollment of clinical locations
- Reactivation of provider status
- Liaison for all payer sources including private and state agencies
- Utilizing current procedural terminology coding with a certified coder on staff
- Monitoring billing contracts and/or provider agreements
- Credentialing
- Other reporting analysis and trends

Certified Professional Coder

CBU hired a full-time certified professional coder (CPC) with expertise in coding medical services and procedures performed by clinicians to ensure services rendered are billed in compliance with payer sources' regulations and guidelines as well as offering consultation for new services being implemented within the department. The CPC assists with internal auditing of records and claims to reduce errors and address coding issues. The CPC also assists with any coding inquiries for family planning, immunization, child health, disease control services, laboratory services, or any clinical services required.

Dental Billing

CBU continued to provide consultation to the dental staff regarding billing for services rendered as they transitioned to a new dental software system. The new software is a practice management solution to help the dental clinic with patient records and payment processing. Dental services are provided at the Tuscaloosa and Greene County Health Departments.

Telemedicine

Telemedicine continued to play an important role during the pandemic. Face-to-face clinical services were replaced with the

use of technology by providers to offer remote care to patients. As telemedicine rules and regulations continuously evolved, CBU stayed up to date on telemedicine reimbursement policies released by payer sources to ensure the department received revenue for services rendered during the pandemic.

Disease Control Services

CBU continued its pursuit of billing for disease control services. CBU worked with the Bureau of Information Technology (IT) to submit claims and receive reimbursement for disease control services rendered in the local county health departments for fully Medicaid-eligible patients. The ability to bill for these services helped with the financial reimbursement to continue to prevent the spread of sexually transmitted diseases and related sequelae such as preterm birth, congenital syphilis, and infertility. The ability to bill also satisfied the department's obligation to federal partners to seek additional funding to support prevention efforts.

Immunization

CBU continued efforts to recover reimbursement for the COVID-19 vaccine administration fee. CBU continued to stay informed on continual policy updates for billing compliance. CBU supported the department's efforts to encourage COVID-19 and influenza vaccines during the pandemic.

Clinical and Laboratory Services

CBU continued its partnership with IT, working with CLAIMS to bill for clinical and laboratory services to both state and third-party payers. CBU worked successfully with IT to implement billing for additional newborn screening tests statewide. CBU also submitted invoices on behalf of the state laboratory for environmental water testing.

Looking Ahead

CBU will continue to look for opportunities for revenue expansion as well as expanding the services offered to patients. The unit remains committed to supporting effective and efficient work processes to ensure successful revenue recovery efforts.

Bureau of Children's Health Insurance

The Bureau of Children's Health Insurance administers ALL Kids, Alabama's separate Children's Health Insurance Program (CHIP). ALL Kids provides comprehensive health coverage to eligible children and uses the Blue Cross Blue Shield of Alabama provider network. In addition to the ALL Kids Program, as a result of provisions in the Affordable Care Act, CHIP also funds a group of Medicaid-eligible children (MCHIP), which is administered by the Alabama Medicaid Agency.

At the end of FY2022:

Total CHIP enrollment: 195,948

ALL KIDS 71,151

MCHIP 124,797

Figure 1. ALL Kids Enrollment by Age Group

	<1	1-5	6-12	13-18	Total
ALL Kids	3,254	16,836	27,476	23,585	71,151
MCHIP	0	230	27,099	97,468	124,797
CHIP Total	3,254	17,066	54,575	121,053	195,948

The total unduplicated number of children ever enrolled in Alabama CHIP during FY2022: 201,176 (ALL Kids: 94,710; MCHIP: 106,466)

In FY2022, the ALL Kids Program paid over \$245 million in claims to primarily Alabama providers. During FY2022 ALL Kids continued to provide COVID-19 testing and treatment at no cost to families.

ALL Kids provides comprehensive coverage for unborn babies through the ALL Babies Program. The three pilot counties remain Macon, Montgomery, and Russell. During FY2022, the program provided coverage to 711 enrollees.

ALL Kids expanded outreach by implementing a digital media campaign in early FY2022. The digital campaign is being continued through FY2023 with the addition of a radio advertising campaign that will run from February-April 2023.

Figure 2. Amount ALL Kids Paid in FY2022 (in millions)

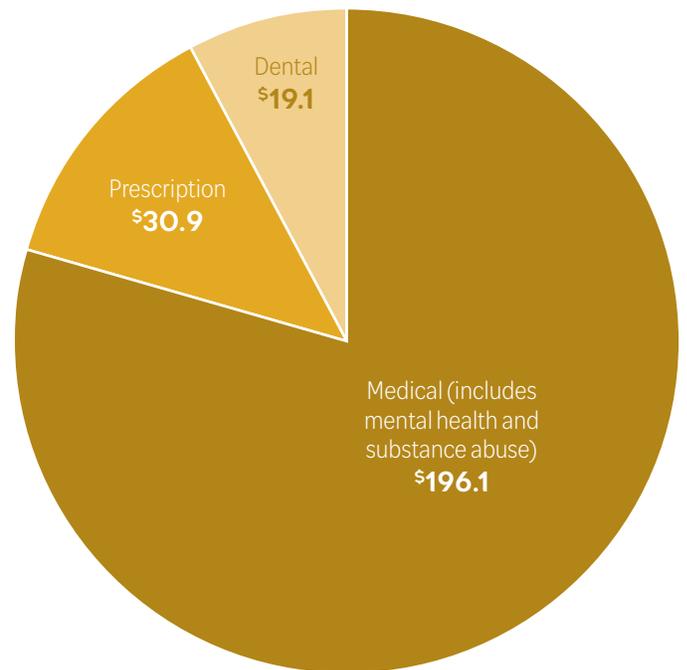


Figure 3. FY2022 ALL Kids-paid COVID Claims
(*Graph based on ALL Kids only; not MCHIP)

COVID-19 Confirmed Diagnosis		
Net Pay Medical	Net Pay Per Patient	Patients Medical
\$5,475,541.89	\$536.61	10,204
COVID-19 DNA/RNA Diagnostic Tests		
Net Pay Medical	Net Pay Per Patient	Patients Medical
\$4,323,434.49	\$109.84	39,362

**Figures rounded to the nearest dollar.*

Bureau of Clinical Laboratories

The mission of the Bureau of Clinical Laboratories (BCL) is to improve and protect Alabama residents' health through laboratory science. The laboratory consists of the Administration, Business Operations, Analytical Chemistry (Chemical Terrorism/Lead), Logistics, Microbiology, Mycobacteriology and Mycotics, Newborn Screening (NBS) Follow-up, NBS Testing, Quality Management, Sanitary Bacteriology, Sexually Transmitted Diseases (STD)/ Chemistry, and Mobile Laboratory divisions. Testing is funded through Medicaid receipts and federal grants.

Public health laboratories form the backbone of a national laboratory network on alert 24/7 to respond to novel strains of disease, natural disasters, chemical spills, foodborne outbreaks, and other health emergencies. They collaborate closely in these efforts with the Centers for Disease Control and Prevention (CDC) and other federal agencies including the Environmental Protection Agency (EPA), Food and Drug Administration (FDA), Federal Bureau of Investigation, and Department of Homeland Security to perform complex testing and surveillance.

Processes at the central laboratory improved since relocating to its new 66,000 square foot facility in 2020. This \$30 million building, located on Legends Court in Prattville, replaces the Montgomery laboratory.

Laboratory Quality

Laboratorians work diligently and are committed to ensure quality testing that supports public health. The BCL is credentialed by the CDC, FDA, EPA, Clinical Laboratory Improvement Amendments, and is working toward International Organization for Standardization 17025:2017 accreditation to reinforce obtaining quality test results.

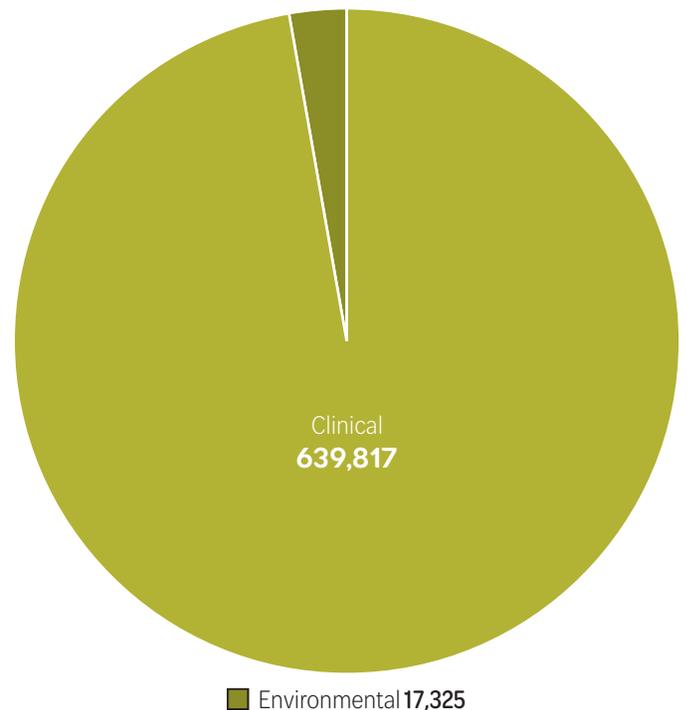
Distribution of Clinical Specimens and Environmental Specimens Received

The BCL offers an array of laboratory testing services at the central laboratory in Prattville and the specialty laboratory in Mobile. A total of 1,645,091 laboratory tests were performed in 2022 for the 639,817 clinical specimens and 17,325 environmental samples received. The distribution of specimens is depicted in the accompanying figure.

Laboratory Information Management System (LIMS)

Electronic ordering and reporting allow for near real-time results. The number of clinical and environmental results reported electronically to partners continues to increase. The BCL upgraded its Horizon LIMS to a new version in November 2022, and its capacity continues to expand as new instruments are interfaced. It is interfaced directly with the department's electronic health record (EHR), the EHRs of Mobile

Figure 4. Distribution of Total Specimens Received at the BCL, 2022



and Jefferson counties, and directly interfaced with an increasing number of partners in the private sector. The number of partners using the BCL's web portal continued to grow over the past year, increasing to over 700 accounts. This portal has proven to be a beneficial tool for timely reporting. The LIMS for the NBS Laboratory does not receive electronic requests but contains tools that facilitate billing, follow-up, and intervention. Registered medical providers can access a web-based, secure remote viewer to retrieve NBS test results.

Clinical Chemistry Specimens Processed and Analyzed

The Clinical Services Branch receives specimens from county health departments, federally qualified health centers, and community-based human immunodeficiency virus (HIV) treatment programs to support the clinical management of their patients. This branch performs routine chemistry profiles, hepatitis screenings, complete blood counts, and CD4/CD8 T-lymphocyte subset enumeration. Analysis is performed by quantitative polymerase chain reaction (PCR) for HIV and hepatitis C (HCV) viral load. In addition, this branch also performs COVID-19, influenza A, and influenza B testing. The Clinical Services Branch processed and analyzed 11,962 specimens during 2022. The Lead Branch conducts testing

for environmental lead and testing in support of the department's Childhood Lead Program. The Lead Branch processed and analyzed 8,560 specimens during 2022.

Infectious Disease Testing – Microbiology

The Microbiology Division continued to respond to the COVID-19 crisis by testing 5,155 respiratory samples by PCR and sequenced 948. One hundred fifty-one cases of influenza were detected. Two hundred three specimens were tested on a respiratory panel for surveillance that detected rhino/enterovirus, adenovirus, coronavirus OC43, human metapneumovirus, parainfluenza 3, influenza AH3, bocavirus, and respiratory syncytial virus (RSV) type B.

As a participant in PulseNet, a national laboratory foodborne illness surveillance network that uses molecular techniques to detect outbreak clusters, the branch performed whole genome sequencing on 736 isolates.

One hundred three specimens associated with gastrointestinal outbreaks were analyzed. Of these, norovirus GI/GII, *Sapovirus*, astrovirus, *Clostridium difficile* toxin A/B, enteropathogenic *Escherichia coli*, *Yersinia enterocolitica*, *Salmonella*, and *Shigella*/Enteroinvasive *Escherichia coli* were identified.

For meningococcal disease surveillance, 95 *Haemophilus influenzae* were serotyped and 5 *Neisseria meningitidis* were serogrouped.

The division continued the partnership with CDC and Jefferson County Department of Health for the Gonococcal Isolate Surveillance Project to track antibiotic resistance trends in *Neisseria gonorrhoeae*. One hundred fifteen specimens were collected and sent to the Antibiotic Regional Laboratory Network (ARLN) where they were collated and analyzed.

Screening for carbapenem-resistant *Enterobacteriaceae*, *Pseudomonas aeruginosa*, and *Acinetobacter baumannii* was sustained. Two hundred twenty-one specimens were forwarded to the ARLN for enhanced surveillance. *Klebsiella pneumoniae* carbapenemase-producing bacteria continues to be endemic in the state.

Preparedness: The Biological Terrorism (BT) Laboratory responded to two suspected cases of botulism and one was confirmed as botulinum toxin B. Several clinical samples were tested to rule out for select agents, *Brucella* was detected in one. The BT Laboratory also responded to the mpox outbreak, testing over 650 specimens, and detecting 146 positive samples. The BT Laboratory also participated in two exercises provided by the Laboratory Response Network.

The Chemical Terrorism Laboratory participated in one materials inventory, one analyte exposure exercise, and one specimen packaging and shipping exercise in 2022. In addition, the staff assisted with the COVID-19 response. The section also collaborated with the Office of Radiation Control to acquire equipment in development of an environmental radiation testing program at the new laboratory with hopes of a new section for radiation testing becoming operational in 2023.

NBS

The Alabama NBS Program is a comprehensive and coordinated system encompassing education, screening, follow-up, diagnosis, evaluation, and management of certain genetic disorders. State law mandates every newborn be tested for certain metabolic, endocrine, hematological, and other genetic disorders. Initial screening is performed at birth, and a second screening is recommended at 2 to 6 weeks of age. The laboratory screens approximately 120,000 specimens for 32 core disorders and 26 secondary disorders translating to about 6 million total tests performed annually. The newborns received hearing screening, and pulse oximetry screening at the birthing facility. Testing began for Spinal Muscular Atrophy (SMA) on February 14, 2022. Early identification of a potential disorder makes it possible to provide care for the newborn, often before symptoms appear, and helps ensure these infants receive life-saving treatments.

NBS allows treatment to be initiated within the first few weeks of life, preventing some of the complications associated with disorders. Early diagnosis may reduce morbidity, mortality, intellectual disability, and other developmental disabilities. The program works in partnership with pediatric subspecialists throughout the state to ensure all babies identified with presumptive positive results receive appropriate diagnostic evaluation and treatment. The program's subspecialists participate in provider education webinars and on the Alabama Newborn Screening Advisory Committee. Additionally, six community-based sickle cell organizations provide counseling services and follow-up for children identified with sickle cell disease or trait.

The Alabama Early Hearing Detection and Intervention (EHDI) Program, Alabama's Listening, ensures that all infants receive a hearing screening prior to hospital discharge, and that they are referred for further testing and intervention if they do not pass the inpatient newborn hearing screen. The Alabama EHDI Program is federally funded through a grant with the Health Resources and Services Administration and the CDC. The goal of the program is to follow the Joint Committee on Infant Hearing Guidelines, which is screening by 1 month of age, diagnostic hearing evaluation by 3 months of age, and referral to early intervention by 6 months of age to ensure optimal language acquisition, academic achievement, and social and emotional development. The Alabama EHDI Program continues to undergo many challenges with following these guidelines as diagnostic facilities return post-COVID pandemic to normal business hours and scheduling families for follow-up. During 2022, the Alabama Newborn Screening Program received approximately 789 presumptive positive lab referrals, 2,855 failed hearing screenings, and identified 206 infants with a newborn screening condition.

Planned activities for 2023 include the addition of three conditions to the Alabama Newborn Screening Panel including X-linked adrenoleukodystrophy (X-ALD), Pompe disease, and Mucopolysaccharidosis type I (MPS I).

Tuberculosis (TB) and Fungal Infections

The Mycobacteriology Branch received 5,541 specimens for isolation and identification of *Mycobacterium tuberculosis* complex as well as species of non-tuberculous mycobacteria (NTM). Using

PCR-based technology, the TB Laboratory can confirm new smear-positive patients in 2 hours. The TB Laboratory works with and provides TB Control staff genotyping data generated by the Michigan Department of Community Health. Both this PCR-based technology and genotyping information have been assets during outbreak investigations as they aid in determining their origins. The TB Laboratory uses Matrix Assisted Laser Desorption/Ionization Time of Flight technology to rapidly identify NTM. The Mycotics Branch reported five endemic yeasts (*Cryptococcus neoformans* and *Cryptococcus* species). A total of 675 specimens were received in this branch from county health departments and private providers. Mycobacteriology and Mycotics test specimens for COVID-19, influenza A, influenza B, and RSV using PCR-based technology. Together they tested 762 specimens in which 303 tested positive for SARS-CoV-2, 3 tested positive for influenza A, 0 tested positive for influenza B, and 2 tested positive for RSV. This branch also supported expedited testing to help mitigate the spread of COVID-19 among department employees.

HIV and STD Testing

The Prattville STD Division performed molecular testing for COVID-19 from January through March 2022. The STD Division received 2,743 COVID-19 samples with 968 (35 percent) testing positive. The incidence rates for chlamydia (8 percent), gonorrhea (4 percent), trichomoniasis (7.8 percent), syphilis (11.6 percent), and HIV (1 percent) showed slight changes for women and men attending adult health and STD clinics. The STD Division received 300,746 specimens and performed 293,905 tests. CT-GC-TV infections are detected using a nucleic acid test. The Bio-Rad BioPlex 2200 instrument is used to perform multiplex assays for syphilis and HIV testing. The CDC's reverse algorithm is followed for syphilis testing. The initial screening test for syphilis is a multiplex treponemal IgG/IgM immunoassay test which also produces results for the nontreponemal Rapid Plasma Reagin (RPR) test to determine past or recent infections. The RPR portion of the assay was reported using the automated RPR on the Bio-Rad Bio Plex 2200 instrument from January 2021 to January 2022. In February 2022, the manual RPR resumed on the Becton Dickinson RPR manual test. The BioPlex 2200 HIV Antigen/Antibody (Ag/Ab) Assay is performed to screen for HIV infections. This multiplex assay produces individual results for HIV1Ag, HIV1Ab, and HIV2Ab. When an HIV screen is positive, an antibody or nucleic acid test is used to confirm the infection.

Mobile Division Laboratory

Shellfish/Beaches Environmental Assessment and Coastal Health (BEACH)/Harmful Marine Phytoplankton Branch

The Mobile Division Laboratory collaborates with the Alabama Department of Environmental Management (ADEM) to meet EPA's BEACH Act requirements. Eight hundred nine samples from coastal waterways were analyzed and reported. The division collaborates with committees of the Interstate Shellfish Sanitation Conference and Gulf of Mexico Alliance to promote laboratory interests in commercial

and environmental projects. The laboratory also supports oyster growing water monitoring and harmful algal bloom (HAB) analysis. Laboratorians analyzed and reported results for 328 samples collected from coastal waterways for HAB monitoring. In addition, 1,008 water samples from oyster growing areas were tested in compliance with National Shellfish Sanitation Program guidelines. Oyster growing and harvest areas require monitoring for bacterial contamination and HAB concentrations to ensure a safe supply of shellfish. Crab meat analysis for *Escherichia coli* and *Listeria* continues as the laboratory works to improve methodology through equipment automation. The division continues to gain FDA approval to establish a *Karenia brevis* enzyme-linked immunosorbent assay confirmation method and was certified for shellstock wet-storage compliance. The division performs testing and collaboration in a partnership with the state of Mississippi, as its shellfish testing capabilities are developed. Work was initiated to participate in the CDC National Wastewater Surveillance (NWWS) Program by instrument and method selection process.

Mobile Division Clinical Branch

The Mobile Clinical Branch performs CT-GC-TV and syphilis testing with the same instrumentation and methods as does the STD/Chemistry Division. The laboratory performed 45,769 tests for CT-GC-TV and tested 22,040 specimens for syphilis. The Urine Culture and Sensitivity Section analyzed 514 specimens for pathogens and antimicrobial sensitivity.

Mobile Division Environmental Testing

The Drinking Water Section tested 6,236 samples from public systems and private wells in support of the Safe Water Act under contract with ADEM.

Sanitary Bacteriology/Media Division (Prattville Campus)

The Sanitary Bacteriology/Media Division tests dairy products, public and private water, and fluoride samples as well as prepares media used by both the county health departments and the BCL. Testing was conducted on 1,637 dairy samples to include raw producer, tank truck, and finished dairy products. Testing was performed on 776 fluoride samples. The laboratory provides proficiency testing for the milk laboratories in the state. Working with FDA, four milk laboratories were inspected for compliance with state and federal regulations. The laboratory tested 3,149 public and private water samples in support of the Safe Water Act. While continuing work with ADEM, 17 public water utility laboratories were inspected for compliance with state and federal regulations. The Media Branch made 995 liters of media in support of the NBS, Microbiology, Milk and Water, Mycology, TB, and EID programs.

Rabies (Mobile and Prattville)

Both the Mobile and Prattville laboratories test suspect animal tissue for rabies. Unique cases in 2022 were associated with a positive bobcat, a coyote, four dogs, and a cat. (For a map of reported laboratory-confirmed animal rabies cases, see Figure 12 from Communicable Disease report, page 11.)

Bureau of Communicable Disease

The bureau's mission is to prevent and control designated communicable diseases and illnesses in Alabama. The bureau consists of the following divisions: Immunization (IMM), Infectious Diseases and Outbreaks (ID&O), Sexually Transmitted Diseases (STD), and Tuberculosis (TB) Control.

IMM

The division's goal is to reduce vaccine-preventable diseases and increase immunization rates. The division has four branches: Surveillance, Registry (ImmPRINT), Vaccines for Children (VFC) and Immunization Quality Improvement Program (IQIP), and Administration.

The Surveillance Branch conducts the Alabama School Survey, in conjunction with the Alabama Department of Education and private schools. This survey evaluates the immunization status of all children to ensure they have a current Certificate of Immunization (COI) or a valid exemption on file in compliance with the 2009 School Immunization and Rules. In the 2021-2022 Annual School Entry Survey, all medical and religious exemptions combined continue to be less than 1.5 percent (1.28) for students

Figure 5. Cases Classified as Vaccine-Preventable Disease Cases in Alabama

Disease	2018	2019	2020	2021	2022
Diphtheria	0	0	1	0	0
<i>H. influenzae</i>	127	119	46	78	121
Hepatitis A	40	225	922	399	51
Hepatitis B	40	64	48	68	57
Measles	0	0	0	0	0
Meningococcal	5	3	3	6	4
Mumps	17	15	0	0	1
Perinatal Hepatitis B	0	0	0	0	0
Pertussis	225	220	85	38	37
Polio	0	0	0	0	0
Rubella	0	0	1	0	1
<i>Strep. pneumoniae</i>	554	372	273	294	401
Tetanus	0	0	0	0	0
Varicella	93	85	17	40	40
Total	1,101	1,103	1,396	923	713

in public and private schools. The percent of students with expired and no COI was 3.67, a decrease from the previous year by 0.49 percent. In addition, the branch oversees vaccine-preventable disease investigations statewide. IMM field staff investigate vaccine-preventable disease reports submitted by notifiable disease reporters and laboratories. In 2022, the IMM field staff investigated and confirmed 713 cases of diseases. In addition, the hepatitis A outbreak that started in 2018 officially ended on August 31, 2022. A total of 1,683 cases were confirmed in 63 counties stretching across Alabama during the hepatitis A outbreak.

The VFC Branch manages Alabama's VFC Program, a federal entitlement program that provides vaccine at no cost to providers who see children under 19 years of age who are uninsured, Medicaid-eligible, under-insured, American Indian, or Alaskan Native. As of December 2022, 511 enrolled public and private providers received approximately \$88 million worth of vaccines. As part of the vaccines distributed, the VFC Program provided 233,300 doses of seasonal influenza vaccine to providers in all 67 counties. Immunization field staff perform regulatory VFC site visits and IQIP assessment visits on 50 percent of enrolled

Figure 6. Number of Vaccines Recorded in ImmPRINT

Year	Source	Number of Vaccines Submitted	Grand Total
2015	Manual	304,407	1,439,168
	HL7	1,134,761	
2016	Manual	453,800	1,846,835
	HL7	1,393,035	
2017	Manual	436,133	2,067,434
	HL7	1,631,301	
2018	Manual	410,401	1,906,688
	HL7	1,496,287	
2019	Manual	1,904,806	4,012,717
	HL7	2,107,911	
2020	Manual	1,337,078	3,978,095
	HL7	2,641,017	
2021	Manual	2,540,025	8,523,277
	HL7	5,983,252	
2022	Manual	1,387,631	4,990,490
	HL7	3,602,859	

Figure 7. Number of Active Sites Recorded in ImmPRINT

Year	Source	County Health Department	Clinic	FQHC/RHC	Hospital	Pharmacy	Schools	Childcare Center	Sub-Total	Grand Total
2015	Manual	68	432	68	23	36	546	2	1,175	3,532
	HL7	7	595	86	56	333	0	0	1,077	
2016	Manual	69	571	78	27	60	1,578	3	2,386	3,489
	HL7	5	606	86	60	346	0	0	1,103	
2017	Manual	71	685	86	34	109	1,664	242	2,891	4,057
	HL7	5	655	89	63	354	0	0	1,166	
2018	Manual	71	801	98	41	241	1,701	339	3,292	4,572
	HL7	4	720	99	66	391	0	0	1,280	
2019	Manual	39	818	88	38	304	1,627	314	3,228	4,623
	HL7	37	648	106	62	542	0	0	1,395	
2020	Manual	71	761	145	77	404	853	0	2,311	3,551
	HL7	63	463	89	55	570	0	0	1,240	
2021	Manual	1	1,015	68	40	361	1,710	579	3,774	5,710
	HL7	72	807	159	81	771	46	0	1,936	
2022	Manual	8	466	40	29	231	646	1	1,421	3,133
	HL7	68	642	155	68	779	0	0	1,712	

providers to promote proper vaccine storage and handling, accurate and safe administration of vaccine, and vaccine coverage improvement. The branch also manages the federal Section 317 funding for vaccines for uninsured/under-insured adults.

The Registry Branch manages the state’s immunization registry, ImmPRINT, for all residents of Alabama. Sites can submit vaccine information manually or by electronic interface. The branch coordinates the interfaces between ImmPRINT and providers’ electronic medical record who submit vaccine information, which includes bi-directional (2-way) communication. In 2021, there were over 5,710 providers who were actively submitting vaccine information into ImmPRINT, with approximately 8,523,277 vaccinations submitted during that time period. There are over 6.8 million patients of all ages and over 75 million vaccine doses recorded in ImmPRINT. ImmPRINT is also the system in which COVID-19 vaccine providers were enrolled and submitted COVID-19 vaccine orders in 2021.

The Administration Branch manages state and federal budgets with over 50 staff statewide, including contracts, grants, payroll, leave, and personnel.

COVID-19 Pandemic

In November of 2019, a novel coronavirus (SARS-CoV-2) was discovered in Wuhan, China. In December 2019, the department began gathering information and planning for a possible epidemic of large-scale proportions. Enrollment of providers in the COVID-19 vaccine response continues, including setting up accounts in ImmPRINT, training providers on the use of ImmPRINT, validating providers, validating vaccine storage units, and educating providers about general immunization practices and standards. By

December 30, 2022, there were 1,501 approved providers (clinics, hospitals, pharmacies) statewide who are receiving vaccine. Since the start of the distribution of COVID-19 vaccine in December 2020, the division has distributed over 11.9 million doses of COVID-19 vaccine to enrolled providers throughout the state.

Mpox Response

An ongoing outbreak of mpox, a viral disease, was confirmed in May 2022. The initial cluster of cases was found in the United Kingdom, where the first case was detected in London on May 6, 2022, in a patient with a recent travel history from Nigeria (where the disease is endemic). From May 18 onwards, cases were reported from an increasing number of countries and regions, predominantly in Europe and in the Americas, but also in Asia, Africa, and Oceania. The outbreak marks the first time mpox has spread widely outside Central and West Africa.

Once mpox cases were discovered in Alabama in mid-to-late summer, the division worked with the STD Division to identify providers and distribute Jynneos vaccine throughout the state to those providers with patients who needed the vaccine. As of December 30, 2022, the division distributed over 4,000 doses of Jynneos vaccine to 14 mpox enrolled providers throughout the state.

ID&O

The mission of the ID&O Division is to protect the health of Alabama residents by monitoring and investigating select infectious, zoonotic, and environmental diseases and events. Figure 8 demonstrates the number of disease reports that were counted as cases according to the criteria established by the Council of State and Territorial Epidemiologists and the CDC in 2022 as compared to the previous 4 years.

Figure 8. Select Alabama Notifiable Disease Case Counts, by Year*

Diseases	2018	2019	2020	2021	2022
Acute Flaccid Myelitis	--	0 [^]	0	1	2
Anthrax	0 [^]	0	0	0	0
Arboviral Diseases (excludes Chikungunya virus, dengue, and Zika virus)	28	6	10	12	5
Babesiosis	0	0	1	1	0
Botulism	0	1	1	0	2
Brucellosis	1	4	1	1	0
Campylobacteriosis	783	754	665	740	761
Chikungunya Virus (travel-related)	0	0	0	0	0
Cholera	0	0	0	0	0
Coccidioidomycosis	--	9	5	13	12
COVID-19	--	--	387,809	538,909	634,839
Cryptosporidiosis	152	225	138	124	147
Cyclosporiasis	--	4	9	6	19
<i>Dengue (travel-related)</i>	2	3	0	1	5
<i>E. coli</i> , shiga toxin-producing (includes O157: H7)	129 [^]	138	100	143	146
Ehrlichiosis/Anaplasmosis	24	39	12	24	11
Giardiasis	217	164	132	165	150
Hansen's Disease (Leprosy)	0	1	1	0	0
Hantavirus Pulmonary Syndrome	--	0	0	0	0
Hemolytic Uremic Dyndrome (HUS)	3	6	3	3	10
Hepatitis E, Acute	0	0	0	0	0
Influenza-associated Non-pediatric Mortality	257	93	19	28	50
Influenza-associated Pediatric Mortality	2	2	1	0	3
Legionellosis	76	72 [^]	61	91	65
Leptospirosis	1	0	0	0	1
Listeriosis	11 [^]	7	14	12	12
Lyme disease	36	66	15	51	32
Malaria (travel-related)	9	9	2	8	8
Mpox Virus Infection	0	0	0	0	174
Novel Influenza A Virus Infection	0	0	0	0	0
Paratyphoid Fever	6 [^]	1 [^]	1	2	3
Plague	0	0	0	0	0
Psittacosis	0	0	0	0	0
Q Fever	2	2	0	2	3
Rabies, Animal	55	50	51	44	45
Rabies, Human	0	0	0	0	0
Salmonellosis	1,198 [^]	1,001	891	854	946
Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)	0	0	0	0	0
Shigellosis	320 [^]	431	346	88	73
Smallpox	0	0	0	0	0
Spotted Fever Rickettsiosis	673	476	90	123	115
Toxic Shock Syndrome (non-streptococcal)	--	0	0	0	0
Trichinellosis (Trichinosis)	0	0	0	1	0
Tularemia	0	4	1	0	2
Typhoid Fever	1	0	1	4	0
Vibriosis (non-Cholera)	38	41	26	34	39
Viral Hemorrhagic Fever	0	0	0	0	0
VISA (<i>Staphylococcus aureus</i> , vancomycin-intermediate)	1	1	0	1	0
VRSA (<i>Staphylococcus aureus</i> , vancomycin-resistant)	0	2	1	1	0
Yellow Fever (travel-related)	0	0	0	0	0
Zika Virus (travel-related)	3	0	0	0	0
Other Investigations	0	3	0	1	0
Total	4,028	3,615	390,407	541,489	665,805

*Preliminary counts include finalized investigations among Alabama residents as of March 9, 2023. These case counts do not include those for conditions investigated by other divisions (TB, IMM, STD).

[^]The other investigations category includes a variety of conditions or events that have been investigated but are not reportable in Alabama or do not fall into any other category (such as histoplasmosis, streptococcal toxic-shock syndrome, yersiniosis).

*The case definition was updated this year for this condition.

Outbreak Investigations

ID&O defines an outbreak as the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time linked to a common exposure; a cluster is defined similarly, except a common exposure is not identified. Single cases or exposures related to certain rare and serious conditions, such as gastrointestinal anthrax, botulism, rabies, or healthcare-associated *Legionella*, may illicit an outbreak-like response. All reporters, as outlined in the Notifiable Disease Rules, are required to report outbreaks of any kind within 24 hours of presumption. In 2022, 814 outbreaks and clusters were investigated; of those, 86 percent were respiratory. Interdisciplinary, collaborative efforts among state and federal partners aided in the identification of causative agents, likely modes of transmission, and underlying environmental causes of illness.

A Legionellosis Outbreak at a Resort in Baldwin County, Alabama

In September 2022, the department initiated a *Legionella* outbreak investigation at a resort where 14 cases of legionellosis were identified. Five were laboratory-confirmed with Legionnaire's disease, one was physician-diagnosed with Pontiac fever, and eight were epidemiologically linked to the outbreak. Case interviews were completed to gather demographic, clinical, and exposure information. Additionally, an assessment of the facility's water systems and aerosolizing devices was conducted using CDC's *Legionella* Environmental Assessment Form. Six high-risk aerosolizing devices were identified in each of the 400 residential units, including a hot tub on every unit balcony, with many others located in common areas. Environmental bulk water samples and swabs were tested at an ELITE laboratory which identified *Legionella* in 93 unit hot tubs and 1 communal hot tub. Of those, 57 percent were positive for *L. pneumophila* serogroup 1. The department provided recommendations for remediation and the development of a robust water management program. The resort continues to collaborate with the department to ensure guests are protected from opportunistic waterborne pathogens.

Arboviral (Mosquito-borne) Surveillance

In 2022, ID&O investigated 40 reports of suspected human arboviral illness; of which 28 percent were determined to be cases. The

Figure 9. Human Arboviral Investigations and Cases in Alabama, 2022*

Arboviral Disease	Investigations	Cases
California Encephalitis	0	0
Chikungunya	2	0
Dengue (all travel-related)	7	5
Eastern Equine Encephalitis	0	0
Jamestown Canyon	0	0
La Crosse Encephalitis	0	0
Powassan	0	0
St. Louis Encephalitis	1	0
West Nile Virus	30	6
Western Equine Encephalitis	0	0
Yellow Fever	0	0
Zika Virus	0	0
Total	40	11

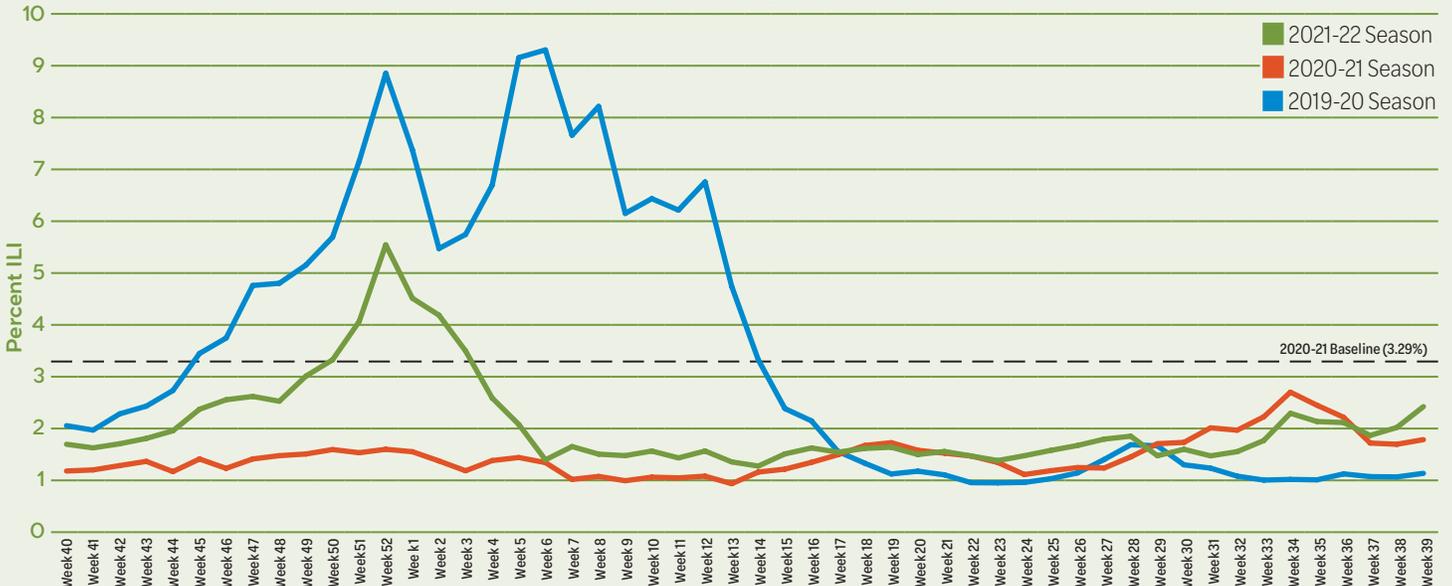
*As of March 9, 2023

majority of investigations were for West Nile virus (WNV). Out of the cases identified, five were WNV and five dengue. WNV remains an ongoing threat to Alabamians.

Respiratory Disease Surveillance

CDC described the 2021-2022 peak seasonal influenza (flu) activity (weeks 40-20) in the United States as mild compared with flu seasons prior to the COVID-19 pandemic. Since the emergence of SARS-CoV-2, flu activity has been lower than observed before the pandemic. During the 2021-2022 flu season, there were an estimated 9 million flu illnesses; 4 million flu-related medical visits; 100,000 flu-related hospitalizations; and 5,000 flu deaths.

Figure 10. Percentage of outpatient visits for ILI were observed above baseline for the first time in December 2021 since March 2020 in Alabama, by week (September 29, 2019 - October 1, 2022)



Overall, A(H3N2) was the most commonly detected flu subtype this season. Bird flu outbreaks in wild birds and poultry continued across the U.S. Since early 2022, more than 49 million birds in 46 states have either died due to bird flu virus infection or have been culled due to exposure to infected birds. As a result, CDC has been monitoring for illness among people exposed to bird flu virus-infected birds since these outbreaks were first detected in the U.S. in wild birds and poultry in late 2021. CDC monitored the health of more than 5,190 people with exposures to bird flu virus-infected birds with one case reported. Additionally, ID&O has continued to monitor Alabama residents exposed to birds infected with bird flu.

On January 18, 2021, the first roll out of COVID-19 vaccination began for people 75 years old or older, as well as first responders, including law enforcement and firefighters. By May 13, Alabama expanded COVID-19 vaccination eligibility to include individuals aged 12 years and older, and the public was encouraged to get vaccinated to slow the spread of COVID-19. On May 31, 2021, Governor Kay Ivey ended Alabama's COVID-19 public health order and the state of emergency on July 6, 2021. Following the expiration of the public health order and state of emergency, influenza-like illness (ILI) activity increased during the 2021-22 flu season compared to the 2020-21 season.

On October 3, 2021 (week 40), weekly reporting began for 2021-2022 flu activity and the statewide ILI percentage was reported below the season baseline (3.39 percent) at 1.62 percent. ILI activity peaked during December (week 52), above the baseline at 5.46 percent. After reaching the highest ILI activity of the season, ILI activity decreased and remained below the baseline in January (week 4).

In addition to ILI surveillance, the strains frequently detected were A(H3N2), and untyped flu A and B. Along with flu, other respiratory pathogens detected in Alabama during the flu seasonal reporting were human rhinovirus/enterovirus, human parainfluenza viruses, human metapneumovirus, respiratory syncytial virus, adenovirus, and human coronaviruses OC43, 229E, and NL63. Ninety-five flu or ILI outbreaks were reported during the 2021-2022 season. Lastly, there were 29 non-pediatric flu-associated deaths and no pediatric flu-associated

deaths reported. Figure 10 illustrates percentage of outpatient visits for ILI during the 2019-2020, 2020-2021, and 2021-2022 flu seasons.

In 2022, Alabama reported 634,839 cases and 3,981 deaths associated with COVID-19. This represents an 18 percent increase in cases and a 58 percent decrease in deaths as compared to 2021. Cases continued increasing during January after the emergence of the Omicron variant in November 2021. The department remains prepared to provide assistance and guidance to the public to keep the residents of Alabama safe as it continues to navigate the ongoing COVID-19 pandemic. ID&O continued conducting the following activities:

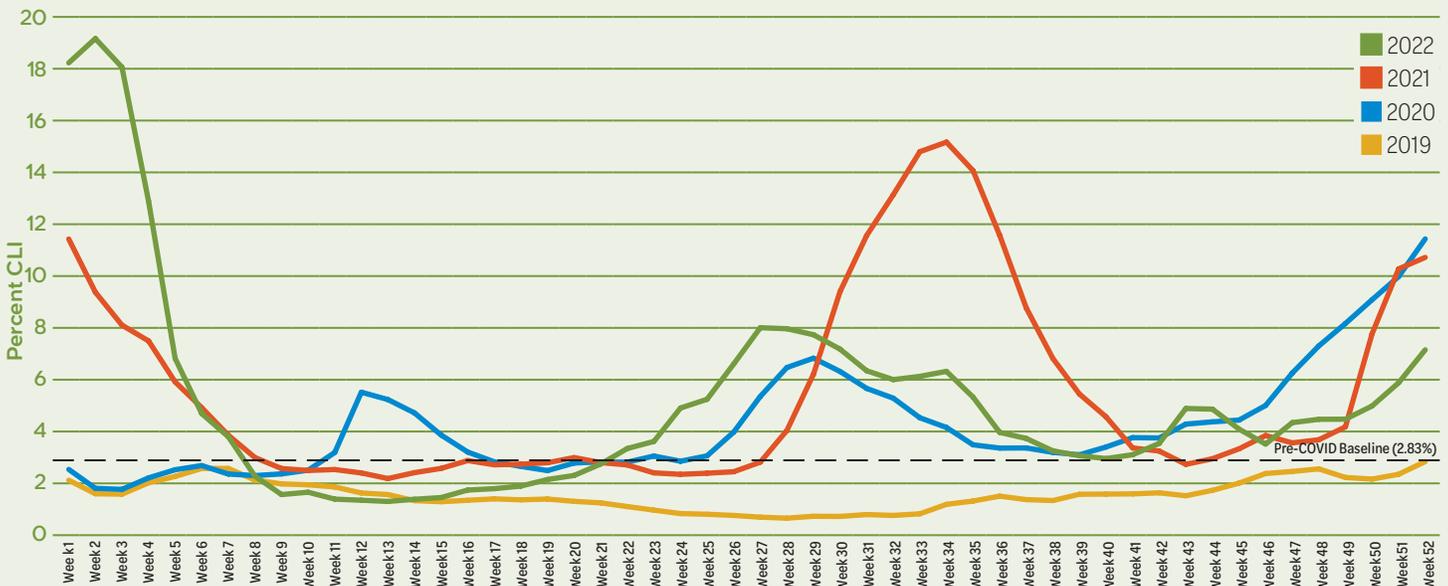
- Investigation of positive cases
- Contact tracing
- Data collection
- Analyzing and visualizing data
- Reporting to local, state, and national platforms
- Monitoring and responding to long-term care facility and school outbreaks
- Mining data for outbreaks and clusters
- Conducting death investigations
- Conducting whole genome sequencing
- Wastewater surveillance
- Prevention of illness and outbreaks (vaccination, treatment, and providing guidance and in assistance with source control measures)
- Conducting readiness assessments

Figure 11 illustrates percentage of provider visits with CLI (COVID-like illness) during years 2019, 2020, 2021, and 2022.

Healthcare-Associated Infections (HAIs)

Alabama remains committed to reducing HAIs in its hospitals. Alabama hospitals began reporting four infection measures to the department in 2011: catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), surgical site infections (SSIs) associated with colon surgeries, and SSIs associated with abdominal hysterectomies. These data represent Alabama's 11th year of reporting infection measures. In 2021, Alabama hospitals had

Figure 11. Percentage of outpatient visits for CLI, By Week and Year



significantly fewer CAUTIs and colon SSIs than predicted using national baseline data. Abdominal hysterectomies were statistically similar to the numbers predicted, while CLABSIs were statistically worse.

Rabies

In 2022, the department investigated potential rabies exposures. The BCL performed 1,243 rabies tests as of December 15, 2022. ID&O confirmed 45 rabies cases. Of the confirmed cases, 89 percent were identified in wild animals (including bats, bobcats, foxes, coyotes, and raccoons) and 11 percent were identified in domestic animals (including cats and dogs). Animal case counts include animals tested at the BCL, as well as positives reported from the U.S. Department of Agriculture Wildlife Services. News releases were issued when positive cases occurred to provide education about rabies in wildlife and highlight the importance of vaccination of domestic animals.

STD

Primary and Secondary Syphilis

In 2022*, a total of 1,035 Alabama residents were diagnosed with primary and secondary syphilis infection. This case count corresponds to a rate of 20.6 cases per 100,000 population. This represents a

Figure 12. Reported Laboratory-Confirmed Animal Rabies Cases in Alabama, 2022

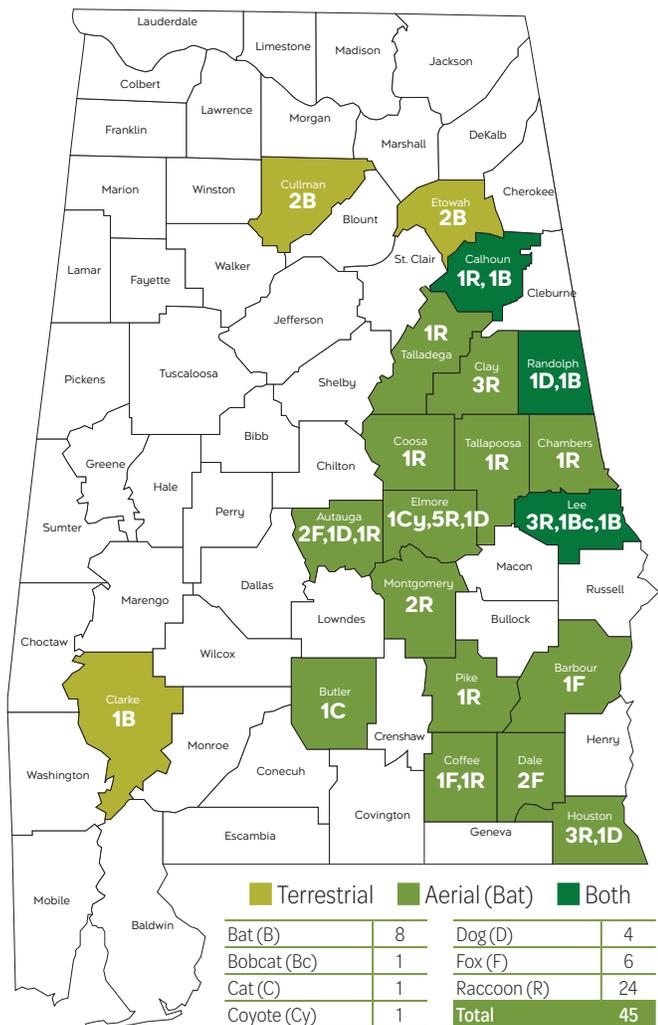


Figure 13. Primary and Secondary Syphilis Cases, Alabama 2013-2022*

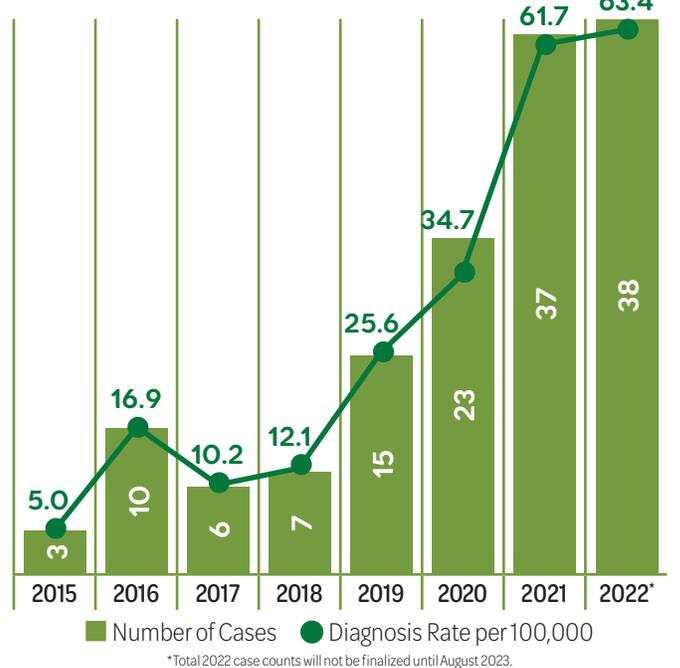


38.7 percent increase from the number of cases reported in 2021. More than 65 percent of the primary and secondary syphilis cases reported in 2022* were residents of Jefferson (173 cases), Mobile (164 cases), Montgomery (148 cases), Tuscaloosa (70 cases), Madison (67 cases), Houston (34 cases), Lee (26 cases), Limestone (21 cases), Shelby (18 cases), and Dale (18 cases) counties.

Congenital Syphilis

The department received 38 reported cases of probable congenital syphilis in 2022. Although this is a partial report, it represents a 1,167 percent increase in reported congenital syphilis cases in Alabama between

Figure 14. Congenital Syphilis Cases, Alabama 2015-2022*



2015 and 2022. Rates increased from 5.0 per 100,000 live births in 2015 to 63.4 per 100,000 live births in 2022*. Missed opportunities to prevent congenital syphilis remain highest in late identification cases of 39.5 percent. Next is unidentified missed opportunity 28.9 percent (Clinical evidence of congenital syphilis despite adequate maternal adequate treatment; then late prenatal care, 10.5 percent; no prenatal care and no syphilis test despite receipt of timely prenatal care, 7.9 percent; and no timely treatment, 5.3 percent.) To stop the increasing number of cases, the department recommends prenatal screening for syphilis in all pregnant women during the initial prenatal visit, at 28 to 32 weeks gestation, and at delivery. According to CDC, obstetricians must treat pregnant women with a positive syphilis test at least 30 days before delivery to prevent maternal transmission.

Chlamydia

In 2022*, a total of 30,531 cases of *Chlamydia trachomatis* infection were reported to the department. This case count equals to a rate of 607.7 cases per 100,000 population. This reflects a 3.0 percent decrease in chlamydia cases from the previous year.

Nearly 65 percent of the chlamydia cases reported in 2022* were residents of Jefferson (6,014 cases), Mobile (3,080 cases), Montgomery (2,530 cases), Madison (2,507 cases), Tuscaloosa (1,587 cases), Morgan (989 cases), Lee (876), Baldwin (812 cases), Shelby (717), and Houston (706) counties.

Persons ages 20-24 and ages 15-19 accounted for 36.9 percent and 28.4 percent of the chlamydia cases reported in 2022*, respectively, which demonstrates the need to engage adolescents and young adults in discussions on sexual health topics.

Gonorrhea

In 2022*, a total of 13,091 cases of *Neisseria gonorrhoeae* infection were reported to the department. This case count corresponds

Figure 15. Chlamydia, Alabama 2013-2022*

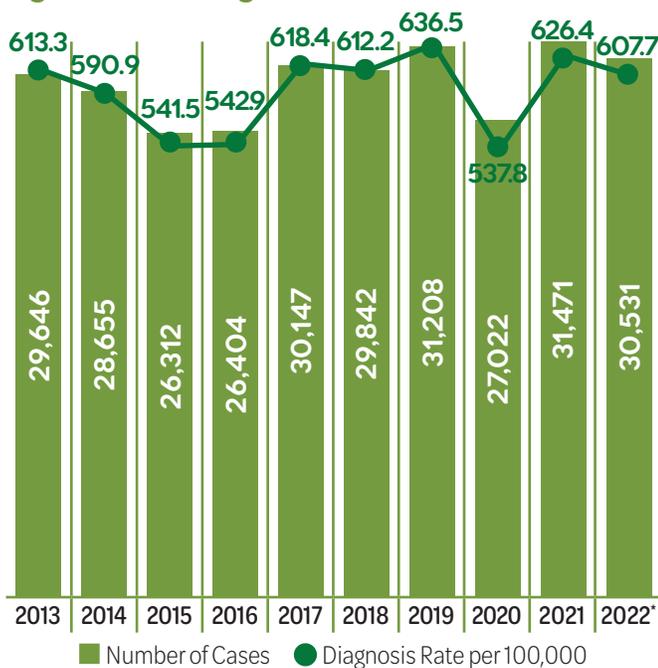


Figure 16. Gonorrhea Cases, Alabama 2013-2022*



to a rate of 360.6 cases per 100,000 population. The number of gonorrhea cases reported to the department decreased by 19.0 percent from the previous year.

Nearly 62 percent of the gonorrhea cases reported in 2022* were residents of Jefferson (2,971 cases), Mobile (1,423 cases), Montgomery (1,327 cases), Madison (1,085 cases), Tuscaloosa (636 cases), Houston (306 cases), and Lee (300 cases) counties.

Persons ages 20-24, persons ages 15-19, and persons ages 25-29 accounted for 30.5 percent, 20.7 percent, and 18.9 percent of the gonorrhea cases reported in 2022*, respectively.

*Total 2022 case counts will not be finalized until August 2023.

HIV Investigations and Interviews

The division initiated HIV investigations of 928 patients (individuals with positive laboratory results and contacts). Five hundred forty-three patients were classified as newly diagnosed HIV cases.

Two hundred nineteen patients were classified as men who have sex with men (MSM). Investigators classified 86 women as contracting HIV through heterosexual activity.

Figure 17. HIV Investigations, Alabama 2022*

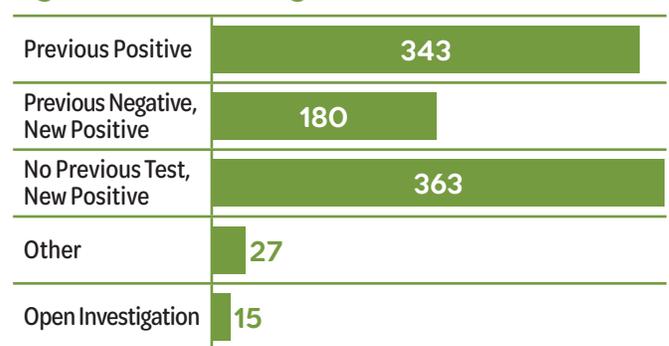


Figure 18. HIV Interview Status, Alabama 2022*

Interviewed	470
Refused Interview	26
Unable to Locate	22
Other	25

*Total 2022 case counts will not be finalized until August 2023.

Figure 19. HIV Risk Factor, Alabama 2022*

MSM	219
Heterosexual Female	86
Male with Unknown Sexual Behavior	82
Heterosexual Male	72
Bisexual Male	34
Female with Unknown Sexual Behavior	40
Other	10

*Total 2022 case counts will not be finalized until August 2023.

More than 67 percent of the interviewed HIV cases reported in 2022* were residents of Jefferson (100 cases), Mobile (59 cases), Montgomery (59 cases), Madison (31 cases), Tuscaloosa (26 cases), Houston (12 cases), Lee (18 cases), and Shelby (10 cases) counties.

In 2022, the STD disease intervention specialist (DIS) workforce referred 425 HIV patients for specialized HIV medical services. Four hundred twenty-nine HIV patients were confirmed to have access to service.

HIV Care Re-Engagement

The division, in collaboration with the HIV Surveillance Branch, identified 267 HIV patients who had fallen out of care for

Figure 20. HIV Medical Care Referrals, Alabama 2022

Accessed Service Within 14 Days	256
Accessed Service Within 30 Days	79
Accessed Service After 30 Days	43
No Access	16
Pending Services	24
Lost to Follow-up	6
Previous Positive/ In Care	1

Figure 21. HIV Care Re-Engagement, Alabama 2022

Deceased	7
Resides Outside Jurisdiction	29
Determined to Be In Care	169
Not In Care	26
Unable to Determine	36

Figure 22. HIV Patients Not in Care, Alabama 2022

Patient Declined Linkage/ Re-Engagement Intervention	5
Linkage Status Unknown	3
Not Successfully Linked to/ Re-Engaged In Care	8
Linked to Care	6
Client Self Reported Linked to Care	2
No Intervention Initiated	2

12-18 months. HIV care re-engagement activities were initiated on 267 patients. STD disease intervention specialists determined 169 patients were in care, the status of 36 patients was unable to be determined, 26 patients were not in care, 29 patients resided outside jurisdiction, and 7 patients were deceased.

Of the 26 patients STD DIS determined not to be in care, 6 patients were successfully linked back to care.

TB

The goal of the Division of TB Control is to eliminate TB in Alabama. Until that goal is reached, the division strives to reduce the annual burden of disease, limit transmission, and prevent future cases through the provision of diagnostic, treatment, case management, and contact investigation activities. The division provides these services to all persons in Alabama regardless of their ability to pay. This commitment to the citizens of Alabama has contributed to a historic decline in morbidity. In 2022, the division confirmed active TB disease in 60 patients. This figure represents a 34.1 percent decrease in confirmed cases compared to 91 cases in 2021.

The 10-year trend in confirmed active cases of TB, as illustrated in Figure 23, reveals an overall decline of 40.6 percent in verified TB cases (from 2013 to 2022). The morbidity reported over the past 5 years has demonstrated progress in the continuing decline of reported TB cases. During the past 5 years, Alabama has reported an average of 81 cases per year.

In addition to the identification, evaluation, and treatment of persons with active TB, the division seeks to prevent future cases

through prompt identification and medical evaluation of contacts at risk for exposure, and to assure the initiation and completion of preventive therapy for those contacts diagnosed with latent TB infection (LTBI). Preliminary data for 2021 shows that 205 persons were identified as contacts to TB cases classified as Acid Fast Bacilli (AFB) sputum smear positive cases, and that 173 (84 percent) of those contacts were fully evaluated. Of the number of persons who were fully evaluated, initial reports indicate that 22 of 173 (13 percent) persons were diagnosed with LTBI and were placed on preventive treatment for LTBI by division staff.

The division continues to place great emphasis on the identification of persons at high risk for progression to active TB disease. Some groups

Figure 23. TB in Alabama, 2013-2022



of persons who are diagnosed with LTBI infection are at increased risk for rapid progression to TB disease including persons who are close contacts to AFB smear positive cases; individuals diagnosed with certain immunocompromising medical conditions such as HIV, diabetes, and others; persons who are foreign-born from countries with a high prevalence of TB (immigrants or refugees); and persons who abuse drugs and alcohol. Treating these persons preventively protects the individual and the community at large from developing TB disease.

Figure 24. Demographics for Confirmed TB Cases in Alabama -2022

Age	
0-4	= 1 (1.67%)
5-14	= 1 (1.67%)
15-24	= 8 (13.33%)
25-44	= 18 (30.00%)
45-64	= 19 (31.67%)
65+	= 13 (21.67%)
Race / Ethnicity	
White	= 36 (60.00%)
Black	= 16 (26.67%)
Asian	= 7 (11.67%)
Other	= 1 (1.67%)
Hispanic*	= 15 (25.00%)
Gender	
Male	= 41 (68.33%)
Female	= 19 (31.67%)
Nativity	
U.S. Born	= 33 (55.00%)
Foreign Born	= 27 (45.00%)

*Hispanic ethnicity is not a single race, so percentages noted do not equal 100.

Office of Emergency Medical Services (OEMS)

The OEMS is responsible for protecting the health, safety, and welfare of the public by assuring that emergency medical services (EMS) provided by response agencies, training entities, and technicians meet or exceed established standards.

The OEMS investigates complaints and may exercise its authority to deny, place on probation, suspend, or revoke licensure when statutory or regulatory violation is substantiated.

Figure 25. EMS Personnel - Personnel Licensed by OEMS by License Type

License Type	Number of Personnel
Advanced Emergency Medical Technician (EMT)	1,119
Emergency Medical Responder	74
Emergency Medical Technician	6,274
Intermediate	177
Paramedic	5,305
Critical Care Paramedic*	476
Total	12,949

*Critical Care Paramedics are also counted in the total number of Paramedics.

Alabama Acute Health Systems

Trauma System

The Alabama Trauma System currently consists of 61 trauma centers, including out-of-state trauma centers. The efforts and dedication of trauma centers, EMS, the Alabama Trauma Communications Center, regional EMS, and state and regional councils working together, facilitate timely routing of trauma patients to the appropriate hospitals.

In 2022, 14,632 patients were entered into the trauma system. The most common mechanism of injury was motor vehicle related.

Alabama Head and Spinal Cord Injury Registry (AHSCIR) / Alabama Trauma Registry (ATR)

Data collection continued for the AHSCIR and the ATR during 2022. The data is collected for two specific purposes; one of which is to provide the Alabama Department of Rehabilitation Services (ADRS) information so it can contact patients to provide information on service linkage for eligible head and/or spinal cord injuries. ATR data is collected from the trauma centers for quality improvement purposes.

Stroke System

The Alabama Stroke System was activated statewide on October 30, 2017. The primary goals of the stroke system are to maintain a stroke emergency care system that results in 100 percent thrombolytic therapy to all eligible patients and to decrease stroke mortality and disability. Patients who are experiencing symptoms of a stroke need to be rapidly evaluated at a hospital and treated to reverse the stroke and minimize the damage. In acute ischemic stroke, the most common type of stroke, thrombolytic therapy must be administered within the first few hours of a stroke.

The four levels of stroke centers in the stroke system are Comprehensive Stroke Center (Level I), Primary Stroke Center (Level II), Mechanical Thrombectomy-Capable Stroke Center (Level IIa), and Acute Stroke Ready Center (Level III).

In 2022, EMS personnel began using the Emergency Medical Stroke Assessment (EMSA) to screen patients for stroke. EMSA is a severity-based stroke triage tool which helps identify large vessel occlusion (LVO) strokes. Treatment for LVO often includes mechanical thrombectomy (MT), a procedure to remove the clot, along with thrombolytic therapy. Not all stroke centers can perform MT, but not all stroke patients require MT.

In 2022, 9,634 patients were entered into the stroke system and 1,855 were diagnosed as suffering an ischemic stroke, of which 385 patients (20.75 percent) received thrombolytic therapy. Four hundred fifty-one patients entered into the stroke system were diagnosed with hemorrhagic strokes.

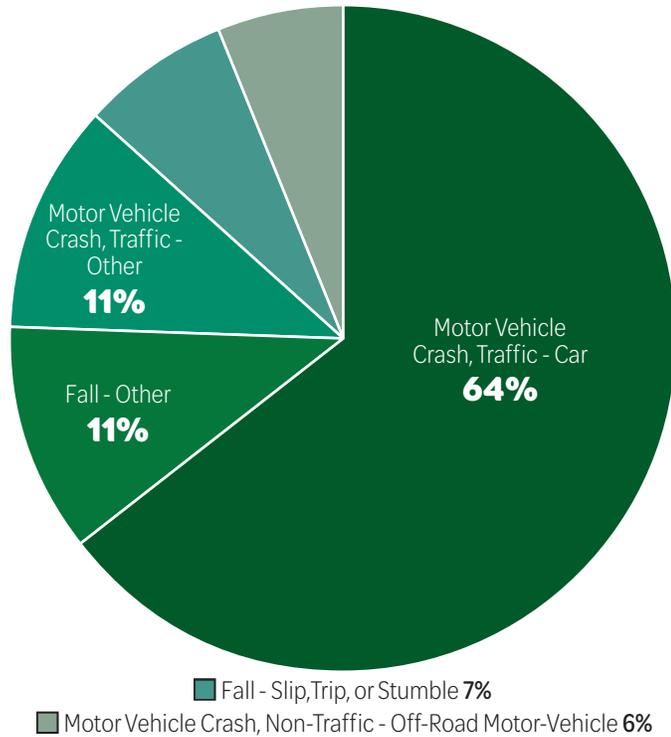
Cardiac System

CARES, Cardiac Arrest Registry to Enhance Survival, helps communities measure performance and identify how to improve cardiac arrest survival rates. Participation in CARES is voluntary. Data is entered into the registry where EMS services can generate their own reports for comparison to state and national benchmarks.

Alabama EMS for Children

The mission of the Alabama EMS for Children (EMSC) Program is to prevent and reduce child, youth, and adolescent disabilities and deaths that are the result of severe illness and injury. Several services are available through the program including education for prehospital professionals; continual permanent installation of the EMSC Program into Alabama's EMS system; and assurance that pediatric equipment, according to the American Academy of Pediatrics/American College of Emergency Physicians guidelines, is available on prehospital emergency vehicles that transport children.

Figure 26. Five Most Common Causes of Injury in 2022 (Children Ages 0 – 18 Years)



Provider Services

The ever-evolving industry that is EMS in the state of Alabama continued to change. The most striking difference was the decrease in the number of air EMS services from 35 to 15. The cause is most likely due to consolidation of resources by services which are stationed at the state’s borders. Below is a breakdown of the number of licensed services in the state of Alabama.

Figure 27. EMS Services Licensed by the State of Alabama

Transport	228
Advanced Life Support	219
Basic Life Support*	9
Air	15
Ground	213
Non-Transport	108
Advanced Life Support	108
Total	336

*The Alabama OEMS currently does not license non-transport basic life support services.

Figure 28 reflects the number of patients who were treated and transported by the transport services listed in Figure 27.

Figure 28. Five Most Common Primary Impression Criteria

Primary Impression Type	Count of Events
General / Other - Weakness	103,897
Cognitive Functions / Awareness – Altered Mental Status	38,025
Pain, Acute Pain, Not Elsewhere Classified	19,120
General / Other – Syncope and Collapse	18,969
Pain – Generalized Abdominal Pain	18,139
General / Other – Malaise	15,836

EMS Education

Alabama currently has 38 accredited EMS education programs. In 2022, several programs successfully achieved accreditation renewal by the Committee on Accreditation of EMS Programs (CoAEMSP) and the OEMS. Three programs completed initial accreditation as new or expanding programs. The OEMS Education Section attends all CoAEMSP site visits. In 2022, that included three site visits for accreditation renewal and two site visits for initial program accreditation.

In 2022, the continued development and implementation of Community Paramedic (CP-C) as a new licensure endorsement continued to be a high-priority initiative of the Education Section. CP-Cs are trained to provide a wide range of healthcare services in non-traditional settings, such as care in a patient’s residence or clinic. One of the most vital benefits of CP-Cs is the reduction of 911 system utilization by non-emergent patients.

Throughout 2022, the OEMS performed extensive research and comparative reviews of over 30 successful CP-C programs to implement community paramedicine in Alabama. Rules, regulations, and education guidelines are undergoing final review to meet projected implementation in spring 2023.

The OEMS has four active, certified NREMT exam representatives. In 2022, the OEMS NREMT exam representatives coordinated and administered 52 AEMT and paramedic psychomotor examinations. In 2022, the OEMS had a state office representative at each EMS program’s advisory board meeting to monitor and evaluate program performance and effectiveness, provide guidance, oversight, and assist with any issues or concerns.

The OEMS Education Section plays a vital role in ensuring the quality and effectiveness of EMS training provided throughout Alabama is of the highest standards. This is accomplished through strategic planning, innovation, and support from the six Alabama Regional EMS offices, state and nationally accredited public and private EMS education programs, agencies, and institutions.

Bureau of Environmental Services

The Bureau of Environmental Services ensures the wellness and safety of Alabamians by regulating food service establishments, milk production, lodging facilities, seafood production, onsite sewage disposal and soil mapping, solid waste disposal, vector control, and indoor air quality and home lead inspections.

Environmental Operations Unit

This unit creates the infrastructure for the bureau by ensuring that the bureau runs proficiently, effectively, and professionally by developing environmental guidelines, policies, and performance standards that measure the efficiency and productivity of the state's environmental programs. The unit also serves as a facilitator for the bureau by providing structured training through workshops, seminars, and conferences for bureau and county personnel. By serving as a "checkpoint" for the bureau, local environmentalists are kept abreast of new and innovative technology, as well as professional development seminars.

Division of Food, Milk, and Lodging

Food and Lodging Branch

- 46,732 inspections were conducted at food establishments, and 2,196 complaints received from the public concerning food establishments were investigated. Additionally, 142 emergency closure orders were issued for sanitation imminent health hazards and 24 emergency closure orders were issued for unsecured grease trap lids.
- 826 lodging inspections were conducted, and 256 complaints received from the public concerning hotels were investigated with 3 emergency closure orders issued.
- 441 body art facility inspections were conducted, and 47 complaints received from the public concerning body art facilities were investigated with 2 emergency closure orders issued.

Milk and Food Processing Branch

- 2,247 samples of milk were reviewed and documented on samples collected for laboratory analysis for bacterial contamination and the presence of antibiotic residue.
- 311 single service container samples were reviewed and documented on samples collected for laboratory analysis for bacterial contamination.
- 114 dairy farm inspections and 237 milk processing plant inspections were conducted.
- 88 equipment tests were conducted to evaluate adequate pasteurization for processed milk and frozen dessert plants.
- 43 single service container plants inspections were conducted.

- 180 milk distribution station inspections were conducted.
- 708 certificates of free sale were issued for shipments of milk and frozen dessert products manufactured in Alabama and shipped to overseas markets.

Seafood Branch

- Collected and analyzed 178 water samples in shellfish growing areas of Mobile Bay.
- Conducted 178 inspections of oyster, crab, and other seafood processing plants; 8 samples of oysters or crabmeat were collected for laboratory analysis.

Division of Community Environmental Protection

The Soil and Onsite Sewage Branch's main objective is to coordinate the onsite sewage program in county health departments. The division carries out programs to minimize the adverse effects of disposal of sewage and high-strength sewage on human health and the environment by establishing and enforcing requirements for the design, permitting, installation, approval, and use of onsite sewage treatment and disposal systems. The branch issued 15,811 permits to install and repair onsite sewage systems and 9,790 onsite sewage systems were issued an approval for use. A total of 1,757 sewage complaints were investigated. County health departments issued 380 waivers of a permit to repair.

The Solid Waste/Vector Program provides information and education to individuals and communities on the storage and control of solid waste to minimize the threat of a health hazard, nuisance, or harborage for vermin or vectors. A total of 526 solid waste complaints were investigated for FY2022.

The Septage Management Program protects public health and the environment by establishing requirements regarding the approval, permitting, siting, operation, record keeping, and closure of land application facilities; regulating septage management practices; requiring minimum sanitary practices for the treatment, storage, and land application of septage and other permitted wastes; and authorizing regular inspections. For FY2022, 510 pumper stickers were issued to septic tank pumper vehicles. There are currently 12 land application sites permitted and 12 sites were inspected statewide in FY2022. Of the 31 septic tank manufacturers permitted in Alabama, 55 manufacturer inspections were conducted in FY2022.

Soil Branch

The Soil Branch provides assistance to local environmentalists concerning problem soils and sites for onsite sewage disposal systems. The staff consists of three soil scientists for 66 counties.

Activities for 2022:

- Total onsite disposal sites evaluated (small flow) – 535
- Total large flow developments evaluated – 85
- Total onsite disposal sites proposed (large flow) – 546
- Lowndes County special project sites evaluated – 20
- Sites with water wells identified – 23
- Training activities conducted – 8
- Number of participants – 71

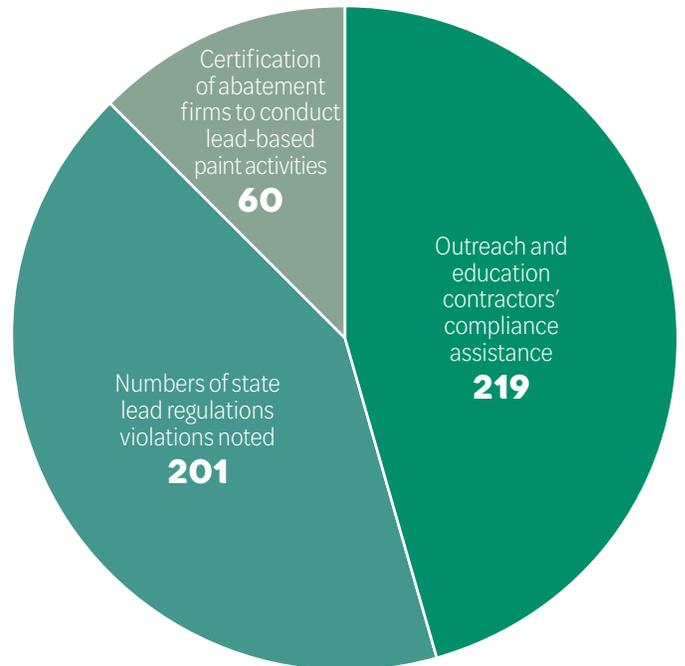
Indoor Air Quality/Lead Branch

The branch provides information and printed materials on issues related to indoor air quality, molds, lead-based paint, and other lead hazards. The primary focus of the branch is to enforce the state regulations promulgated under the Alabama Lead Reduction Act of 1997. These rules require individuals and firms engaged in lead identification and risk assessment and lead-based paint removal of pre-1978 housing and child-occupied facilities to be trained and certified to perform according to established safe work practice standards. The branch administers the Asbestos Hazard Emergency Response Act (AHERA) Program and its regulations that require public school districts and non-profit schools, including charter schools and schools affiliated with religious institutions, to:

- Inspect their schools for asbestos-containing building material.
- Prepare management plans and take action to prevent or reduce asbestos hazards.

Branch personnel also provide support for the Alabama Childhood Lead Poisoning Prevention Program. The branch is the EPA-designated state indoor air contact providing advisory services

Figure 29. Lead Contractor Certification Program Activities, FY2022



for the state and those who request it by providing indoor air quality, molds, and asbestos information and printed materials. It is also the EPA-designated agency for AHERA requiring local education agencies to inspect their school buildings for asbestos-containing building material, prepare asbestos management plans, and perform asbestos response actions to prevent or reduce asbestos hazards.

Bureau of Family Health Services

Cancer Prevention and Control

Alabama Breast and Cervical Cancer Early Detection Program (ABCCEDP)

For more than 25 years, ABCCEDP has provided free breast and cervical cancer screening and diagnostic services for women in Alabama who have no insurance and are at or below 250 percent of the poverty level. Statewide funding for the program is provided by CDC, the state of Alabama, and the Joy to Life Foundation. In addition, the Joy to Life Foundation funds services for underserved women who are not eligible for ABCCEDP. The foundation's funding significantly enhances breast cancer screening efforts.

Breast cancer screening includes free clinical breast exams and biennial mammograms. Cervical cancer screening includes a free pelvic exam, a Pap smear, and an HPV test. If needed, diagnostic services such as diagnostic mammograms, ultrasounds, surgical consultations, biopsies, and colposcopies are provided. If a patient is diagnosed with breast cancer or cervical pre-invasive or invasive cancer, she is eligible to receive treatment through the Alabama Medicaid Agency. In the past 10 years, since 2012, a total of 1,106 breast cancers and 2,502 cervical pre-invasive and invasive cancers have been diagnosed through ABCCEDP.

Figure 30. ABCCEDP Diagnosed Breast Cancers by Year*

2012	155
2013	129
2014	129
2015	105
2016	127
2017	111
2018	106
2019	99
2020	99
2021	100

*2021 is the most recent year for which statistics are available.

WISEWOMAN (Well Integrated Screening and Evaluation for Women Across the Nation) Program

WISEWOMAN strives to help women who participate in ABCCEDP understand and reduce their risk for cardiovascular disease. The program provides services to improve hypertension and promote healthy lifestyles. Each participant is screened for hypertension, hypercholesterolemia, diabetes, smoking, and body mass index. Since the program began in 2013, more than 6,634 unique women have participated in the program. Ninety-eight percent of these women have received at least one face-to-face health coaching session with a licensed social worker. Medication assistance was provided to 1,010 participants, 931 participants received assistance for seasonal sustenance, 2,807 received one-on-one counseling with a nutritionist, and 466 have attended a support group.

Participants are given access to resources needed to improve their cardiovascular health such as risk reduction counseling, health coaching, nutrition visits, and support groups. Program efforts have led to improvements in blood pressure control through increased awareness, knowledge, and skills to improve nutrition, physical activity, and reaching and maintaining a healthy weight. Dietitian consultations, medical follow-up visits, and health coaching sessions have resumed in person; if participants do not feel comfortable with in-person visits, these services can be completed remotely.

Figure 31. ABCCEDP Diagnosed Preinvasive and Invasive Cervical Cancers by Year*

2012	94
2013	154
2014	127
2015	153
2016	225
2017	317
2018	259
2019	445
2020	404
2021	324

*2021 is the most recent year for which statistics are available.

Alabama Statewide Cancer Registry

The Alabama Statewide Cancer Registry, a population-based cancer registry, is an information system designed for the collection, management, and analysis of cancer data. The purpose of the cancer registry is to collect accurate and up-to-date information about cancer in Alabama. The cancer data is then disseminated to public health and medical professionals, community groups, volunteer agencies, and others who are interested in cancer prevention and control. Cancer is the second leading cause of death in Alabama, exceeded only by heart disease. Approximately 1 in 3 people will be diagnosed with cancer at some point in his or her lifetime. Effective prevention measures exist to substantially reduce the number of new cancer cases each year and to prevent cancer deaths. Cancer surveillance serves as the foundation for a comprehensive strategy to reduce illness and death from cancer and enables health professionals to better understand the cancer burden. The registry plays a significant role in disseminating data to aid efforts to reduce the burden of cancer in Alabama.

Alabama Comprehensive Cancer Program

The Alabama Comprehensive Cancer Program facilitates the statewide Alabama Comprehensive Cancer Control Coalition. The coalition is a statewide group of cancer-related organizations and advocates that are responsible for assessing the burden of cancer, determining priorities for cancer prevention and control, and implementing the 2017-2022 statewide comprehensive cancer control plan. The vision is to eliminate the burden of cancer in Alabama. The current 5-year goals are to expand partnerships; decrease the number of Alabamians affected by tobacco; increase the number of Alabamians receiving the HPV vaccination; reduce Alabamians' cancer risk by decreasing their exposure to ultraviolet light; and improving the health equity of disparate populations in Alabama affected by cancer. Healthy lifestyle choices such as a proper diet, regular exercise, and participation in checkups and screenings are vital. The program and coalition seek community members and organizations interested in setting the state's agenda for cancer control.

Colorectal and Prostate Cancer Prevention Program

The division oversees legislative funds to provide colorectal and prostate cancer screening for underserved men and women. Over the past year, colorectal cancer funding was used to screen 90 persons. The prostate cancer funding was used to screen 597 persons.

Child and Adolescent Health

The Child and Adolescent Health Division is comprised of the Adolescent Pregnancy Prevention Branch (APPB), the Social Work Branch, and the Child Health Branch which includes the Alabama Childhood Lead Poisoning Prevention Program (ACLPPP) and the Healthy Child Care Alabama (HCCA) Programs. The COVID-19 pandemic continued to provide challenges for program operations due to restrictions that contributed to limited access to the targeted populations served.

The APPB works to reduce the incidence of unplanned pregnancies and sexually transmitted infections among teens in Alabama. The branch's work is made possible through federal grants awarded to the department from the U.S. Department of Health and Human Services,

Figure 32. Alabama Cancer Incidence Rates by Site and Sex, 2011-2020 Combined*

Cancer Site	MALE		FEMALE	
	Rate	Count	Rate	Count
All Sites	513.2	139,639	399.0	125,340
Bladder	31.8	8,255	7.5	2,501
Brain and Other Nervous System	7.6	1,964	5.6	1,637
Breast	1.4	376	121.8	37,782
Cervix Uteri	-	-	9.2	2,353
Colon and Rectum	49.2	13,063	36.7	11,698
Esophagus	8.0	2,250	1.6	551
Hodgkin Lymphoma	2.6	619	2.1	528
Kidney and Renal Pelvis	24.3	6,556	12.5	3,957
Larynx	7.3	2,080	1.6	511
Leukemia	15.7	3,977	9.8	3,018
Liver and Intrahepatic Bile Duct	12.1	3,490	4.3	1,412
Lung and Bronchus	82.2	22,562	49.8	16,868
Melanoma of the Skin	27.4	7,093	17.1	4,990
Myeloma	8.4	2,257	5.9	1,936
Non-Hodgkin Lymphoma	19.2	4,978	12.9	4,149
Oral Cavity and Pharynx	19.7	5,452	6.9	2,207
Ovary	-	-	11.1	3,444
Pancreas	15.1	4,086	11.2	3,756
Prostate	122.6	35,648	-	-
Stomach	8.6	2,280	4.9	1,576
Testis	4.3	968	-	-
Thyroid	4.9	1,243	13.7	3,655
Uterine (Corpus and Uterus, not otherwise specified)	-	-	19.7	6,396

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard. Rates and counts are for malignant cases only with the exception of urinary bladder and groups that contain urinary bladder. *2020 is the most recent year for which statistics are available.

Administration for Children and Families. The APPB works at the community level to provide opportunities and resources that promote the overall health and well-being of youth, which includes abstinence education, personal responsibility education, and overall positive youth development. During FY2022, the branch provided programming to approximately 1,650 youth in 14 Alabama counties. Although the COVID-19 pandemic has declined tremendously, the branch still experienced some difficulties with reaching the target population.

The APPB contains the Alabama Sexual Risk Avoidance Education Program which provides evidence-based and evidence-informed abstinence education to middle school-aged youth in school and community settings through grants to youth-serving organizations. This programming equips youth with the tools needed to resist

sexual risk behaviors and to make healthy relationship choices. The branch also contains the Alabama Personal Responsibility Education Program, which provides education regarding abstinence and contraception to youth in community settings through grants to youth-serving organizations as well as high schools. Youth received evidence-based, medically accurate programs including lessons on adulthood preparation, designed to promote successful transition to young adulthood.

The Social Work Branch continues to provide care coordination services for multiple programs throughout the state. The Early Periodic Screening, Diagnostic, and Treatment Care Coordination Program provides care coordination services for newborn hearing, newborn screening, and elevated lead levels. Staff completed 4,531 referrals in this program including 1,177 elevated lead referrals, 58 newborn screening referrals, and 3,296 newborn hearing referrals. The Social Work Branch continues to collaborate on a grant with the Alabama Department of Human Resources to ensure children enrolled in Early Head Start attend medical and dental appointments and assist in the recruitment of children with special needs into the Early Head Start Program. The Community Health Advisor Program, funded through Title X, provides care coordination services that focus on family planning services, women’s health-related conditions, and promotion of the HPV vaccine in 20 underserved counties. The ALL Babies Program through CHIP, provides medical coverage and care coordination services to uninsured pregnant women who do not qualify for Medicaid or ALL Kids due to age, citizenship, or income in Montgomery, Macon, and Russell counties. During FY2022, 182 women received ALL Babies care coordination services.

The ACLPPP is a collaborative effort of the Bureau of Family Health Services, the Bureau of Environmental Services, CDC, and the Alabama Medicaid Agency. The program provides case investigation, case management services, and environmental testing to help identify and alleviate sources of lead exposure for lead-affected families. In January 2022, the ACLPPP aligned with new CDC recommendations which decreased the blood lead reference value (BLRV), which is the level at which public health intervention is initiated, from 5 micrograms per deciliter (mcg/dL) to 3.5 mcg/dL. This has enabled the program to identify more lead-affected children and provide services to more at-risk families.

In addition, the ACLPPP provides public education and outreach to spread awareness about lead poisoning and increase the number of children screened for lead exposure. In April through September 2022, the branch developed and mailed more than 1,500 packets to

providers across the state, sharing the new BLRV and the associated recommendations, providing sample resources for clinic use, and reminding providers of the reporting mandates for blood lead results. Program staff also made over 350 face-to-face visits with pediatric, family practice, and occupational health clinics across the state.

The HCCA Program provides health and safety training and technical assistance to early childcare providers throughout the state. In an effort to prevent injury and promote health, 16 nurse consultants work to provide first aid, safety, CPR, infection control, and poison prevention training. Staffing continues to be a challenge for childcare providers statewide. During FY2022, programming was provided through 7,508 classes to more than 38,000 provider staff statewide.

Oral Health Office (OHO)

The OHO continued to sponsor quarterly Oral Health Coalition of Alabama meetings. The coalition had the honor of hosting Tim Ricks, D.M.D., M.P.H., FICD, FACD, Rear Admiral, Assistant Surgeon General, and Jane Grover, D.D.S., M.P.H., Director, Council on Advocacy and Prevention, American Dental Association. These speakers brought awareness to oral health disparities, access to care, and workforce issues.

In the oral health arena, basic screening surveys (BSS) can be viewed as a 5-year statewide needs assessment. The survey stratifies information obtained regarding incidence of treated/untreated decay and presence of sealants over a wide range of categories such as age, race/ethnicity, gender, and participation in free/reduced lunch programs. Height and weight are also collected to assess body mass index of the sample selection. Initiated in August 2020 and completed in May 2022, 52 schools were systematically selected by the Association of State and Territorial Dental Directors for the survey. A total of 2,957 kindergarten and 2,607 third grade children were successfully screened, yielding results for comparison to Alabama’s last BSS, as well as with other states. One of the most significant findings was the 9.8 percent incidence of dental sealants compared to the national average of 42 percent and Alabama’s most recent BSS (2010-2012) occurrence of 29 percent.

During the BSS, height and weight measurements were also obtained to offer a BMI profile of Alabama’s kindergarten and third grade children. See Figure 34.

Additionally, 1,899 pre-kindergarten screenings were conducted, providing child health records, to maintain compliance with Alabama First Class Pre-K and Head Start programs.

A new partnership materialized between the Northern Public Health District and the hygiene programs of Calhoun Community College and Wallace State Community College. An agreement was reached in which the hygiene programs accept in kind patient referrals for preventive dental visits from the department in exchange for dental supplies, such as prophylaxis paste, radiographic imaging supplies, and patient napkins. In keeping with the guidelines of the Maternal and Child Health (MCH) Title V Block Grant which funds the program, the target patient populations are children ages 1-17 years old and expectant mothers. The partnership has already proven to be mutually beneficial to patients as well as the hygiene

Figure 33. Number of Children with Reported Blood Lead Tests

Description	Total 2021*	Total 2022**
Reported Number of Individual Children Less than 18 Years Old with at Least 1 Blood Lead Test Collected	35,122	47,340
Number of Unduplicated Positive Lead Cases Eligible for Services	677	1,622

*2021 positive is > 5 mcg/dL and data is finalized **2022 positive is > 3.5 mcg/dL and data is preliminary

Figure 34. Table 2: BMI-For-Age Cutoffs Stratified by Grade and Sex, 2020-2022

BMI-For-Age	Males			Females			Both Sexes		
	Percent	Lower 95% CL	Upper 95% CL	Percent	Lower 95% CL	Upper 95% CL	Percent	Lower 95% CL	Upper 95% CL
Kindergarten	n=1,388			n=1,311			n=2,699		
Underweight	2.6	1.7	3.6	3	1.6	4.3	2.8	2.0	3.6
Healthy Weight	55.5	51.8	59.3	55.8	52.9	58.7	55.7	53.1	58.2
Overweight	18.3	16.1	20.6	18.6	15.9	21.4	18.5	16.5	20.4
Obese	23.5	19.9	27.1	22.6	19.3	25.9	23.1	20.2	25.9
Third Grade	n=1,305			n=1,129			n=2,434		
Underweight	1.4	0.4	2.5	1.4	0.7	2.1	1.4	0.7	2.2
Healthy Weight	51.5	48.0	54.9	49.5	44.7	54.3	50.6	47.4	53.7
Overweight	15.4	12.9	17.8	17.1	14.5	19.8	16.2	14.4	18
Obese	31.7	27.9	35.5	31.9	26.3	37.5	31.8	28.2	35.4
Both Grades	n=2,693			n=2,440			n=5,133		
Underweight	2.1	1.3	2.8	2.2	1.4	3.0	2.1	1.6	2.7
Healthy Weight	53.5	50.4	56.6	52.8	49.9	55.7	53.2	50.7	55.7
Overweight	16.9	15.1	18.6	17.9	15.9	19.9	17.4	15.9	18.8
Obese	27.5	24.9	30.2	27.1	23.7	30.5	27.3	24.8	29.8

programs, especially since the freshman hygiene class of Calhoun is the inaugural class. Since February 2022, departmental referrals have resulted in 15 expectant mothers and 119 children receiving preventive dental visits from the programs.

Efforts to improve Community Water Fluoridation (CWF) continued to prove effective as evidenced by an 11 percent increase in water fluoridation quality awards from the previous year (123 versus 109). Contributing to this increase was the previously revamped more efficient collection methodology of split samples by the water plant operators implemented by the OHO. Additionally, the office offers fluoridation grants to water systems needing to replace failing equipment, wishing to purchase new equipment, or for initiation of CWF at their facility. This is a competitive process through which requests for proposals are submitted and graded by the OHO staff.

The Tuscaloosa County Health Department is the only county health department with a dental facility under the purview of the OHO. Oral health funds were allocated to provide it and its satellite operatories in Greene County replacement of antiquated and failing dental equipment. Three new operatory treatment chairs and examination lights were purchased for the Tuscaloosa County Health Department, and two new portable suction units were installed in Greene County. The majority of the patients seen in both facilities are in alignment with the Title V parameters, with this, significantly, being the only dental presence in Greene County.

The #WATCHYOURMOUTH oral cancer awareness campaign continued to garner nationwide attention. The multifaceted campaign was originally developed to highlight the month of

April as Oral Cancer Awareness Month through a collaborative effort between the OHO and the University of South Alabama Mitchell Cancer Institute in 2019. Its focus was intended to be primarily on HPV-related oral cancers and the HPV vaccine which was FDA-approved for these types of cancers in 2020. Since then, the campaign has been increasingly promoted to other states by the manufacturer of the vaccine. Per request from the American Dental Association Council on Advocacy for Access and Prevention, the OHO featured a panelist for a nationwide, three-part series, "Preventing HPV Cancers in Action," in which the #WATCHYOURMOUTH campaign was featured in "Building Blocs: Medical-Dental Collaboration Models and More." Additionally, referrals to the OHO from the Association of State and Territorial Dental Directors for insight into the campaign continue.

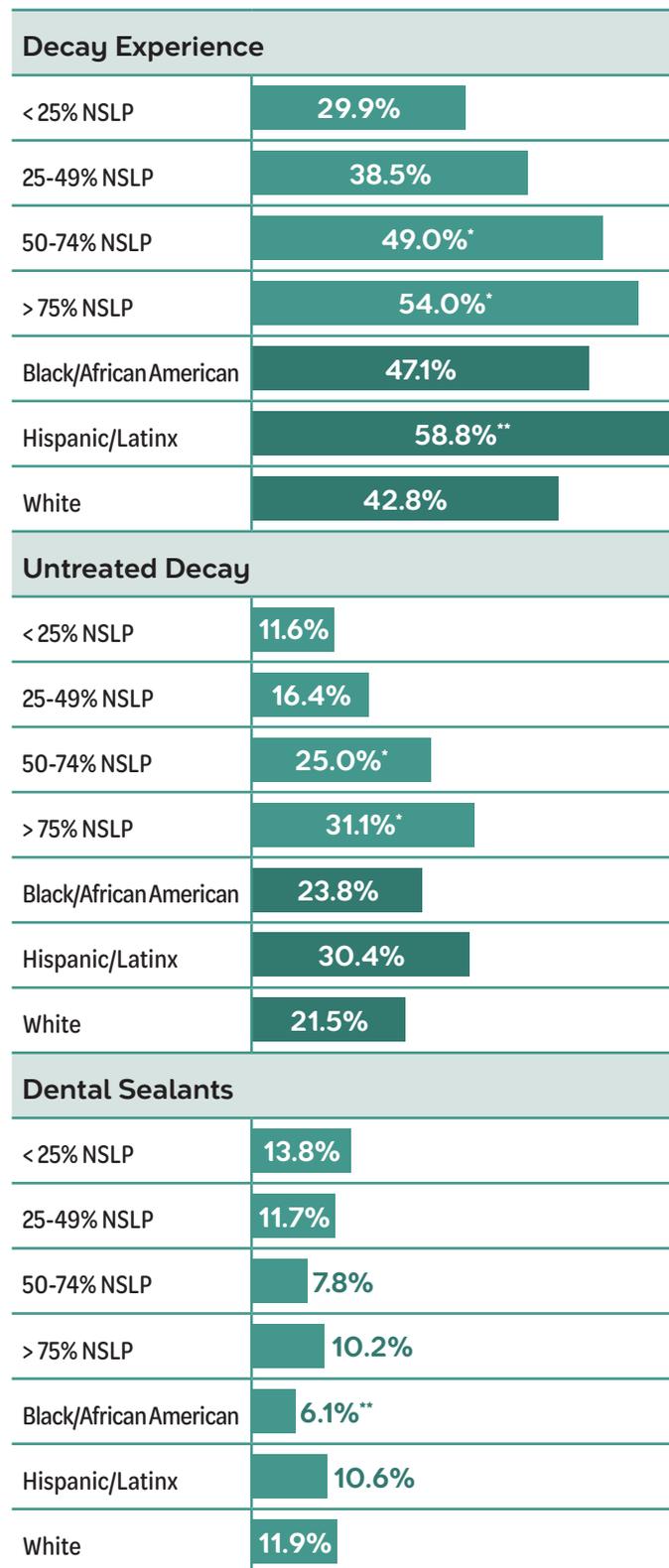
The fifth annual "Share Your Smile with Alabama" contest celebrated its return to an in-person statewide news conference to announce its winners. The annual contest accepts non-professional photo submissions of male and female third grade students (or ages 8-10 years if home-schooled) which are then voted on by departmental staff statewide. Announcement of the winners coincides with National Children's Dental Health Month in February and is intended to stress the importance of preventive dental visits, CWF, and the importance of children receiving the first dose of HPV vaccine at age 9. The winners, who received prize baskets, were featured on billboards near their schools.

Perinatal Health

The Perinatal Health Division offers various programs in support of improving MCH. These programs include MCH Epidemiology,

**Figure 35. Oral Health of K and 3rd Graders*
Alabama, 2020-2022**

*By percentage of kindergarten and third grade students in a school eligible for the national school lunch program (NSLP) and race/ethnicity



*Significantly higher compared to schools with <25% of students eligible for NSLP
**Significantly different from non-Hispanic White children

Perinatal Regionalization, Fetal Infant Mortality Review, Maternal Mortality Review, and Well Woman.

MCH Epidemiology

The mission of the MCH Epidemiology Branch is to utilize research and analysis to assess needs to impact public health policy that will assure the healthiest conditions for the state's MCH populations. In order to answer a request or provide context for a statistic or topic, staff may sometimes perform literary searches and statistical testing and identify and glean information from key subject matter experts. The branch administers the MCH Title V Block Grant Annual Report and Application the State Systems Development Initiative (SSDI), and the Pregnancy Risk Assessment Monitoring System (PRAMS).

PRAMS is a joint research project between the department and CDC. The department began collecting PRAMS data in 1993. The purpose of this program is to determine why some babies are born healthy and others are not. To do this, a questionnaire asks new mothers about their behaviors and experiences around the time of their pregnancy. For the year 2021, 1,406 mothers were randomly selected from the state birth certificate registry and sampled for the PRAMS Project. Responses to the survey are used to implement new projects or modify existing ones to help improve the health of mothers and babies in Alabama.

The branch provides support to the following programs within the bureau: the Alabama State Perinatal Program, which includes the Fetal and Infant Mortality Review and the Maternal Mortality Review programs; the Family Planning Program; and the Childhood Lead Program. The branch also provides support to the State of Alabama Infant Mortality Reduction Plan Workgroup as well as the Pregnancy Outcomes Team of the department's Strategic Planning Team.

The MCH Program coordinates federal MCH Title V Block Grant activities. MCH Title V Block Grant services to Children and Youth with Special Health Care Needs are administered through a contract with the Alabama Department of Rehabilitation Services, Children's Rehabilitation Services. The Alabama MCH Program staff continue to change the different ways in which the grant is administered to better align with the objectives and performance measures across six population health domains. Additionally, states must select evidence-based or informed strategy measures (ESM) for each of the selected national performance measures. Bureau staff work with community, state, and national partners to identify and implement ESMs that improve the health of Alabama's MCH population. An update to the MCH priority needs for 2021-2025 and the evidence-informed strategies to address those needs is being completed. Efforts of the block grant are supported by the SSDI to include expansion of staff knowledge with statistical analysis and providing program analytical support as needed.

State Perinatal Program

The purpose of the State Perinatal Program is to identify and recommend strategies that will effectively decrease maternal and infant morbidity and mortality. Program activities include maternal, fetal, and infant mortality reviews; community outreach and education to reduce risk factors associated with maternal, fetal, and infant deaths; support and promotion of breastfeeding and safe

sleep practices; promotion of the Alabama Regionalization System Guidelines; and continuing the initiatives of the State of Alabama Infant Mortality Reduction Plan.

The Maternal Mortality Review Program continued the process of reviewing all maternal COVID-19 deaths in real time so that timely review and recommendations could be made. Perinatal Program staff are developing a Fetal and Infant Mortality Review Report which will outline fetal and infant mortality reporting and efforts accomplished by the Fetal and Infant Mortality Review Program since 2010. Alabama published its second Maternal Mortality Review Report in 2022, which outlines imperative findings, including causes of death, key contributing factors, and recommendations for preventative strategies based on the 2016 and 2017 maternal deaths reviewed by the committee.

In 2021, Alabama had the sixth highest maternal mortality rate in the nation of 36.4 per 100,000 live births. The Alabama Maternal Mortality Review Committee (MMRC) 2021 report indicates members reviewed data from 2016 and 2017 for women ages 15-56 years who were identified as maternal deaths. The leading causes of death in the 80 cases reviewed by the committee were determined to be cardiovascular-related events, substance overdose/toxicity, and infections. The table below is taken from the MMRC 2021 Report and shows the distribution of maternal mortality cases by preventability. Of the 80 cases reviewed, more than half (56.3 percent) were deemed as preventable. As the committee continues to review maternal deaths in Alabama, it is making recommendations and developing strategies to help save lives and reduce the maternal mortality rate in Alabama.

Figure 36. Maternal Mortality Cases Reviewed, 2016-2017

Death Preventability	Number = 80	Percentage
Preventable	45	56.3%
Not Preventable	33	41.3%
Unable to Determine	2	2.5%

Office of Women’s Health (OWH)

OWH provides statewide leadership and coordination to promote the health of women and girls through policy, advocacy, education, and partnership. OWH achieves its mission and vision by educating health professionals, and motivating behavior change in consumers through the dissemination of health information. In 2022, the office’s Neonatal Abstinence Task Force merged with the Governor’s Substance Abuse Task Force to collaboratively address the critical issue of substance abuse in the state. Additionally, OWH Steering Committee members volunteered to provide health education to incarcerated women in Alabama.

Well Woman Program

The Well Woman Program promotes healthy living, prevention, and early detection of disease to assist in increasing longevity and quality of life for women ages 15 to 55 in Alabama. The program began as a pilot program in FY2017 with 3 counties and has expanded

to 12 counties in Alabama due to federal Title V grant funding and funds from the Governor’s Initiative to Reduce Infant Mortality Rates in Alabama. The program enhances access to preventative screenings for cardiovascular disease, wellness checks, and vision and oral screenings; and offers free services to address issues such as obesity, hypertension, high cholesterol, and diabetes. All program components are related to the delivery of screening, diagnosis, treatment of hypertension, and delivery of support to patients receiving Well Woman services. Patients are given the opportunity to participate in behavioral change programs addressing chronic diseases, food choices and portion control, physical activity, and smoking cessation. The Well Woman Program utilizes the New Leaf curriculum, which is a nationally recognized science-based intervention tool that emphasizes practical strategies for making changes in dietary intake and physical behaviors. The referrals are from community partners, local physicians, and other programs within the department. The Well Woman Program has been included as one of several strategies of the Governor’s initiative.

Telehealth and telemedicine services have been beneficial in the continuation of Well Woman services during the COVID-19 pandemic. Telehealth/telemedicine is incorporated into the program, which allows for continuation of services, such as health and nutrition coaching sessions, risk assessment and counseling, as well as other educational opportunities. In FY2021, the program began a trial pilot clinical team in the West Central District (Hale, Greene, and Perry counties) to broaden services to a population of women in a medically underserved region of Alabama known as the “Black Belt.” The pilot team travels to each county one day of the week to offer services to eligible women. The increased number of Well Woman counties offering services allows for growth and the provision of more information for the continuation of care regarding preconception and inter-conception care, as well as promoting healthy lifestyle behaviors to women in their districts. Figure 37 illustrates the current counties within Alabama with a Well Woman Program.

Family Planning

The Family Planning Program (FPP) promotes the well-being of families, responsible behavior, and healthy mothers and babies. The program’s goal is to prevent unintended pregnancies through education and contraceptive services, allowing for the planning and timing of pregnancies. The FPP is funded in part by Federal Title X family planning services grants. For more than 50 years, Title X family planning clinics have played a critical role in ensuring access to a broad range of family planning and related preventive health services for millions of low-income or uninsured individuals and others. Title X is the only federal grant program dedicated solely to providing individuals with comprehensive family planning and related preventive health services.

Title X family planning services are available in 81 sites across Alabama. These services are available in all 67 counties. The FPP provides a wide range of confidential and professional family planning services to both females and males of all ages. These services are provided regardless of income. Clients may be eligible for free or reduced cost services. Family planning services include testing for pregnancy and STDs, breast and cervical cancer screening, reproductive and contraceptive

Figure 37. Well Woman Programs in Alabama



counseling, and access to a broad range of contraceptive methods, including oral and injectable contraception, intrauterine devices, contraceptive implants, emergency contraception, and referrals for male and female sterilization.

Despite ongoing COVID-19 precautions, the services and initiatives of the FPP continued. Telehealth visits assured uninterrupted client access to essential, time-sensitive family planning and related preventive health services, and restrictions around in-person services eased over time. In FY2022, department providers served just over 37,000 family planning clients, completing nearly 79,583 in-person and telehealth visits; Title X sub recipients, Jefferson County Department of Health and Mobile County Health Department, provided family planning services to an additional 9,142 clients.

During FY2022, the FPP continued colposcopy services, improved access to care, and increased patient compliance with abnormal cervical cancer screening follow-up. Nurse practitioner senior colposcopy training was completed in 2022. This allowed patients to be seen at local county health departments. Bridging the gap in patient care services during a national nursing shortage, the department hired 17 nurse practitioners statewide.

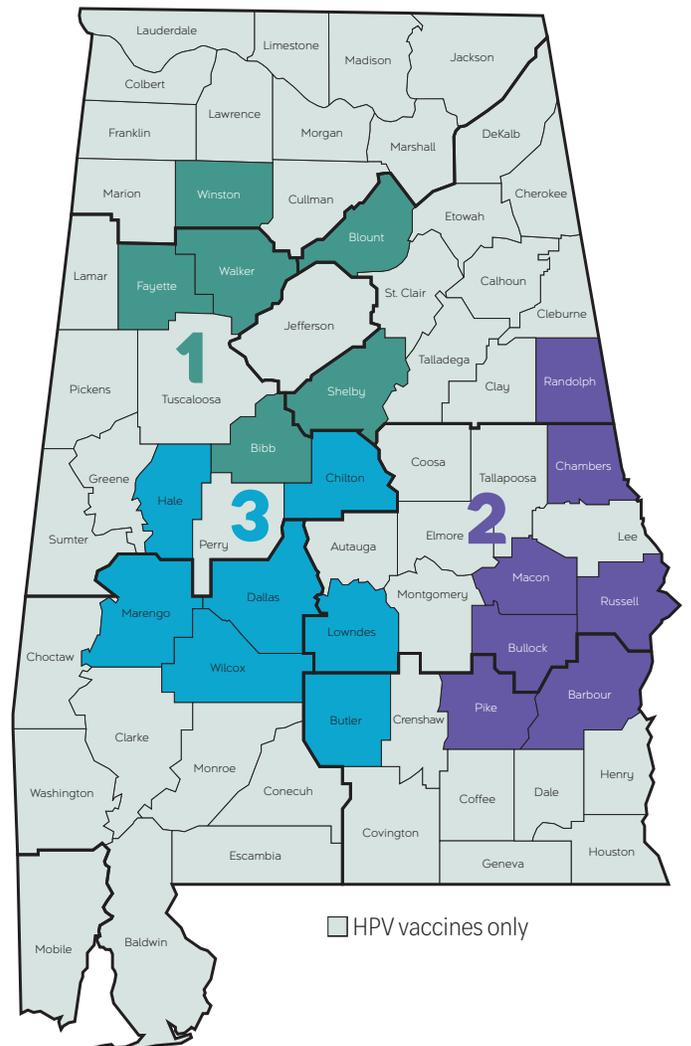
Figure 38. Total Colposcopies Performed by Year

Year	Number of Colposcopies	Referral for further treatment
2019	264	48 (18%)
2020	251	43 (17%)
2021*	216	35 (16%)
2022*	253	58 (23%)

*Decrease in number of clinics offered due to COVID-19 for 2020 and 2021

Through community-based outreach and education and collaborative relationships with community organizations, FPP public health educators emphasize the Community Health Advisor (CHA) initiative’s focal issues – reducing cervical cancer morbidity and mortality through regular cervical cancer screening and preventing cervical cancer with HPV vaccine. HPV vaccine, Gardasil®9, prevents most cervical cancers, as well as six HPV-related oropharyngeal cancers, and is available in all departmental family planning clinics. During FY2022, the FPP provided, free of charge, 4,133 doses of HPV vaccine to 2,915 clients. The public health educators also promoted community awareness of the broad range of family planning services and contraceptive methods that are available in local

Figure 39. Family Planning Community Health Advisor Program Counties



□ HPV vaccines only

health department clinics. Additionally, CHA initiative social workers provided individualized, risk-based care coordination services, such as education and follow-up to facilitate clients' completion of provider referrals for higher-level medical care and/or completion of the HPV vaccination series. In 2022, the three social workers provided care coordination services to 2,109 family planning clients, completing 8,169 encounters. This is an increase of 38 percent from FY2021.

Women, Infants, and Children Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves women who are pregnant, recently had a baby, or are breastfeeding; infants; and children up to the age of 5 years. To qualify to receive WIC benefits, the applicant must meet income guidelines and have at least one nutrition risk documented. Benefits provided by the WIC Program include quality nutrition education, breastfeeding promotion and support, referrals to maternal and child healthcare services and other assistance agencies, and supplemental foods prescribed as a monthly food package. Supplemental foods include fruits and vegetables, whole grains, dairy, protein sources, juice, infant foods, and standard contract formulas as well as other specialized formulas ordered by physicians.

During FY2022, Alabama WIC increased the amount of cash value benefits (CVBs) issued to qualifying WIC participants to purchase fresh fruits and vegetables. Monthly CVBs were increased to \$24 per child, \$43 per pregnant or postpartum woman, and \$47 per breastfeeding woman. The CVB increase enabled many WIC families to expand the variety of nutritious fresh produce options consumed, building a strong foundation for lifelong healthy eating choices. Alabama WIC issues electronic food instruments and CVBs, with each family receiving an eWIC card to purchase WIC-approved foods. To further improve the shopping experience and promote social distancing, WIC participants are also able to utilize their eWIC card at self-checkout lanes at certain authorized vendors.

In February 2022, Alabama WIC responded to the nationwide formula recall and resulting nationwide infant formula shortage. The formula shortage is still ongoing and is expected to last into 2023. To ensure affected infants were able to obtain formula, Alabama WIC implemented several federally authorized infant formula waivers and added numerous temporary infant formula options to the approved product list. Being an eWIC state was instrumental to Alabama's response to the formula shortage as eWIC enables families to redeem formula and other WIC-approved foods as needed throughout the benefit month, removing the previous requirement to redeem all benefits issued on a paper check during a single shopping trip. Alabama's response was extremely important as the most recent birth data from 2021 suggest that WIC served an estimated 50.4 percent of the infants born in Alabama during that year.

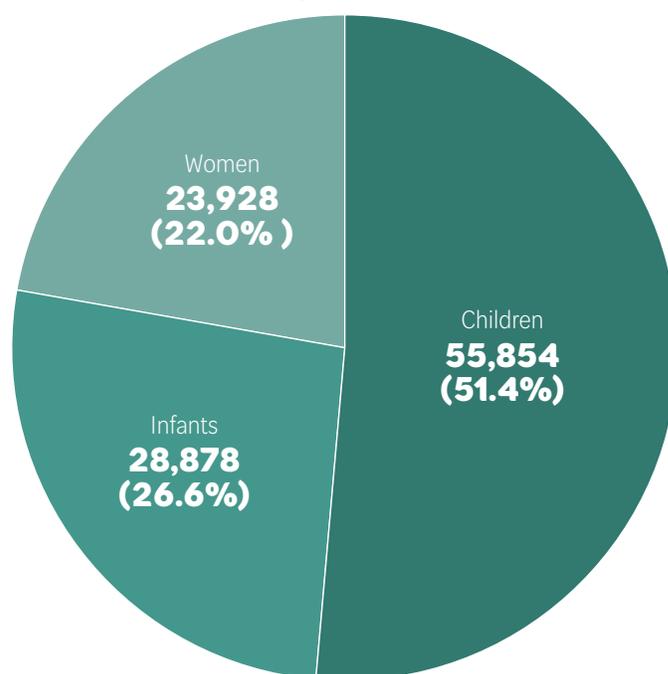
Part of Alabama's ongoing response to COVID-19 involves utilization of several federally authorized WIC waivers to ensure participant safety and continuation of services. Social distancing waivers include remote benefits issuance, physical presence, and separation of

duties, all of which enable WIC benefits to be issued remotely. For certain participant groups, benefits are automatically issued each month without action from the participant. Participants in need of regular nutritional assessments are still able to receive benefits via individualized appointments, either remotely over the telephone or in person at WIC clinics based on participant needs. In addition to social distancing waivers, Alabama's WIC Program continues to utilize a food package substitution waiver to ensure adequate supplies of whole wheat/whole grain bread remain available to participants during the pandemic. These waivers, along with the infant formula waivers, enabled Alabama's WIC Program to serve an average of 108,661 monthly participants during 2022.

Figure 40. WIC Food Redemptions by District, FY 2022

Public Health District	Food Redemption
East Central	\$11,794,732.41
Jefferson	\$8,924,374.82
Mobile	\$7,711,783.04
Northern	\$16,694,903.86
Northeastern	\$12,194,158.05
Southeastern	\$7,993,053.59
Southwestern	\$7,239,538.15
West Central	\$7,668,448.70
Total	\$80,180,992.62

Figure 41. Alabama WIC Program Average WIC Participation, FY 2022



Office of Field Operations

Clinical Management and Practice

Clerical

Public Health clerical staff provide professional assistance in the daily operations of county health departments and in the daily functions of the districts and Central Office. Staff serve in a variety of roles including front desk receptionist, intake clerk, home health clerk, and office manager. Each administrative support staff member is vital to the agency's ability to meet the needs of the citizens of Alabama.

Electronic Health Record

The Electronic Health Record (EHR) was implemented in 2017 and is the system of record for all clinical encounters. EHR includes interfaces with the Bureau of Clinical Laboratories, the Alabama ImmPRINT vaccine registry, the Alabama Medicaid One Health Record, and the Alabama NEDSS-Based System (ALNBS) for disease reporting. All patients have access to a patient portal, where they can view detailed information about previous visits and have access to all prescriptions, laboratory orders, and results.

The department has approximately 950 active users of the EHR, which include nurses, providers, social workers, disease intervention specialists, and other non-clinical roles. The EHR staff provide on-site training monthly for all users on a first-come, first-served basis.

Infection Control and Employee Health

The Infection Control and Employee Health Program began in the fall of 2021. During the COVID-19 pandemic, the program provided educational support for the district infection prevention and control (IPC) teams. Each district has a 4- to 6-member team that provides testing, vaccination, and education for emerging diseases. These teams have the capability to respond quickly and efficiently to furnish much-needed services to Alabamians in community settings statewide. District IPC teams provide support and education regarding infection control principles, CPR, and nurse competency training for departmental staff. Acquiring knowledge for the proper utilization of personal protective equipment is an ongoing task for the IPC teams with emerging diseases always on the horizon. IPC teams mobilize statewide to assist within county health departments with testing and vaccination as well as assist community agencies as needed. The program provides ongoing learning opportunities and training. As old diseases resurface and new ones emerge, the program will continue to monitor current disease trends to provide up-to-date educational information and guidance as the infection landscape continues to shift.

Employee Health is a section of Infection Control. In this program, IPC supervisors provide fit testing training and guidance for N95

masks and powered air purifying respirators. Approximately 30 candidates are fit tested in each district to ensure an adequate response pool of departmental staff. Each IPC district supervisor participates in fit test train-the-trainer classes in Birmingham to ensure quality fit testing procedures. Currently, the Employee Health Manual is in revision to reflect up-to-date recommendations from CDC, the Occupational Safety and Health Administration, and the department risk management group.

Nursing

The mission of Public Health Nursing is to assure conditions in which individuals, families, and communities can be healthy utilizing the unique expertise of public health nurses to assess, plan, and implement programs which promote health and prevent disease. The department employs approximately 800 nurses who provide family planning, child health, and preventive and treatment services for disease control. Public health nurses are active in the community through involvement in health fairs and other educational opportunities. The department is an approved provider of continuing education and offers numerous opportunities for continuing education hours via satellite and on-site classes. The division has continued to respond to Public Health needs during the COVID-19 pandemic by providing testing and vaccinations throughout the state.

Social Work

Social work staff serve as members of a multi-disciplinary team of professionals, skilled in using social work values, knowledge, and community resources to promote positive health outcomes, while respecting personal choice and promoting the health and well-being of individuals, groups, and communities. Public Health social workers act as liaisons within their respective communities, educating and advocating for changes to improve poor outcomes related to social determinants of health. Public Health Social Work is an approved provider of Social Work Continuing Education by the Alabama Board of Social Work Examiners, and during 2022 provided social work continuing education credit for more than 50 programs both onsite and via satellite. The department employs approximately 125 social workers who provide care in county health department clinics, patient homes, and the local community. They are responsible for programmatic oversight in the county, district, and Central Office. Social workers provide direct services to a multitude of Alabamians in a variety of settings and programs within the department including Alabama Sexual Risk Avoidance Education, Alabama Personal Responsibility Education Program, All Babies, CHIP, COVID-19 Response and Education, Diabetes Self-Education, Elevated Lead, Emergency Preparedness, HIV Care Coordination, Home Health, Licensure and Certification,

Minority Health, Newborn Screening Care Coordination, Newborn Hearing Screening, STD, Suicide Prevention, Telehealth, TB, Tobacco Prevention, Well Woman, and WISEWOMAN, and serve on several committees at the local level using the Collective Impact framework to address deeply entrenched and complex social problems that negatively impact the communities of Alabama.

Telehealth

Telehealth provides a solution that connects patients with providers through increasing access to healthcare, improving health outcomes, and reducing healthcare costs. The Telehealth Program encompasses 66 county health departments which are equipped with carts that use digital technology to supply medical care, health education, and additional public health services.

Collaborating with 15 healthcare agencies, departmental staff facilitate services such as nephrology, neurology, cardiology, behavioral health, and HIV follow-up. Telehealth staff work with special partners, such as the Alabama Lions Sight Association, Jacksonville State University's Nurse Practitioner Program, and UAB's Living Donor Program, to reach patients where they are in rural communities. The Telehealth equipment is also utilized by departmental staff for meetings and training events.

Telehealth Program staff also manage several funding opportunities such as testing and mitigation of the COVID-19 virus among people who are experiencing homelessness and awarding American Rescue Plan Act funds to hospitals to expand telehealth throughout Alabama. The department continues to improve and increase the usage opportunities of the telehealth carts by growing its network of partners and equipment upgrades to expand the reach of healthcare access across Alabama.

Bureau of Financial Services

The Bureau of Financial Services provides support to the department through financial and cost accounting management. Services rendered in support of the department and its goals include accounts receivable, payroll, accounts payable, purchasing, budgeting, grant accounting, production planning, and administrative support.

In FY2022, Financial Services managed the department's \$941 million budget using 359 internal budgets interfaced with 13 Executive Budget Office spending plan activities, and 233 internal funds interfaced with 13 State Comptroller's funds in the State

Treasury. The bureau managed a total of more than 100 federal grants with a value in excess of \$618 million and 475 contracts totaling over \$869.5 million.

Included in the federal grants are WIC gross food outlays of \$81.8 million including \$29 million received from the department's infant formula rebate contract. The bureau provided fiscal agent services for the department in the form of payroll, procurement, accounts payable, contract payment processing, and also budget management to the Family Practice Rural Health Board and the Board of Medical Scholarship Awards.

Figure 42. Public Health Funding History (Fiscal Year)

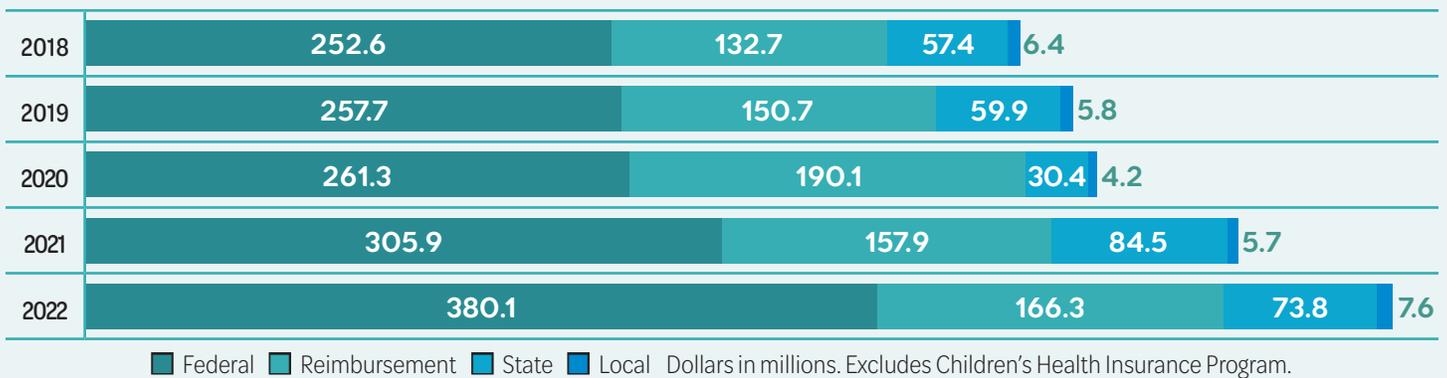


Figure 43. State Appropriations - Public Health (Fiscal Year)

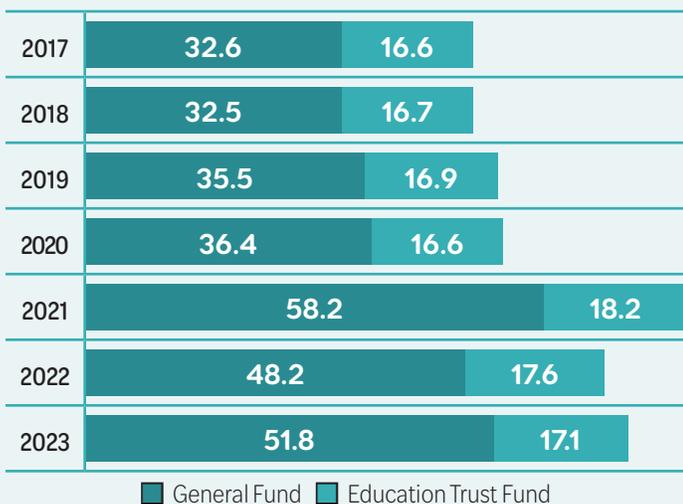
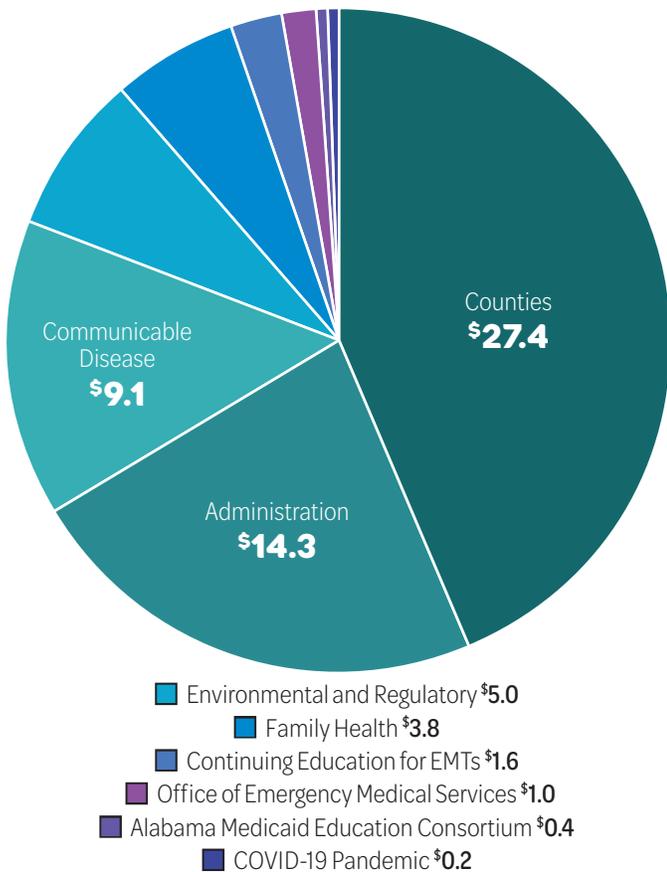


Figure 44. State Appropriations - CHIP (Fiscal Year)



Figure 45. Use of State Funds – FY2022

General Fund and Education Trust Fund only (in millions)



As a result of the COVID-19 pandemic, the bureau was responsible for increased grant funding provided to the department for use in responding to the pandemic. Additionally, the bureau provides all accounting services for the Alabama Public Health Care Authority (the authority). The State Committee of Public Health authorized the department to establish the authority as a public corporation in 1995. The mission of the authority is to build, furnish, and equip public health facilities throughout Alabama.

The authority has completed the Phase I, II, III, and IV building programs, which included constructing and renovating 66 facilities, including a new state laboratory and training center. The authority continues to propose and develop solutions for additional public health buildings and equipment needs.

The authority manages the Alabama Public Health Capital Maintenance Trust Program, which provides funding for a comprehensive, coordinated preventative maintenance improvement and replacement program for public health facilities in Alabama. The authority's construction management firm provides technical assistance, advice, and program monitoring. The program spent \$1,238,280 during FY2022 to provide the following services:

- Periodic facility inspections to identify deficiencies, repairs, and maintenance needs.
- Maintenance contracts for heating, ventilation, air conditioning systems, fire alarms, and fire sprinkler systems.
- Roof systems maintenance/repair and a full range of other maintenance repair expenditures and renovations to maintain public health facilities in good working order.

Office of Information & Data Analytics (OIDA)

OIDA is led by the State Epidemiologist to improve the department's data-driven decision making. The mission of the office is to ensure that the determinants and distribution of disease and health for Alabama are accurately assessed and the information is disseminated in a meaningful way. OIDA provides support with epidemiologic integration, analysis, interpretation, visualization, and dissemination.

OIDA is assessing the department's internal data landscape to identify opportunities for data integration and modernization to facilitate data-driven decision making. The initial phase of the project will be completed in 2023. The team has assisted several other bureaus with performance measures and data reports to inform program activities and meet deadlines for deliverables.

In 2022, 77 Alabama hospitals signed up to submit electronic case reports (eCR) to the department. ECRs increase the speed, efficiency, and completeness of hospitals reporting conditions needing public health involvement, while decreasing the burden of manual reporting on healthcare professionals. Two hospitals are fully onboarded and sending eCR in real-time.

The Hospital Discharge Data Act, which enables Alabama to join 48 other states and receive hospital discharge data without patient identifiers, passed in 2021. These data will supplement and inform program activities throughout the department to better understand the public health needs of citizens and will provide intervention opportunities to prevent avoidable hospitalizations. The Hospital Discharge Data Advisory Council drafted rules that became effective in March 2022. All hospitals are in compliance with data submissions. Data will be available for public use in early 2024.

Syndromic surveillance provides a way to understand why people are visiting emergency rooms or urgent care centers. Besides providing situational awareness for emerging pathogens, it also provides year-round information on influenza-like illness, drug overdoses, heat- and cold-related illness, and carbon monoxide poisonings. OIDA links various public health team members to information useful to their programs.

As part of workforce development, the department partnered with UAB to provide SAS workshops tailored to surveillance data and grant-required reporting needs. The workshops have strengthened applied epidemiology within the department.

Governmental Affairs and Community Relations

The Office of Governmental Affairs and Community Relations serves as the primary liaison between the department and various legislative and state government offices as well as community officials and organizations to address the most pressing public health issues affecting Alabama citizens. Governmental Affairs assists with the development of the department's legislative agenda and reviews all legislation relating to public health issues and programs. The office also serves as a resource for public health information needed by decision makers at all levels of government and their constituents needing public health information.

The office works to identify ways the department can partner with other community entities to ensure poor social determinants of health and risky health behaviors are addressed by connecting programs, populations, and resources. The office focuses on working across multiple organizations and through stakeholders to address the complex public health concerns that impact Alabama citizens.

Office of Health Equity and Minority Health (OHEMH)

The OHEMH was re-imagined in 2021 during the height of the COVID-19 pandemic. Health equity is defined as the state in which everyone has a fair and just opportunity to attain their highest level of health. During COVID-19, increased mortality and morbidity were observed in populations carrying increased risks of comorbidities including the elderly and the chronically ill. Those populations in rural communities which lack access to healthcare also suffered a disproportionate burden of disease.

With these structural inequities magnified during the COVID-19 pandemic, the OHEMH, with stakeholder input, developed a 3-year

plan for elevating health equity throughout departmental programs and policies. Utilizing reliable data to identify communities at highest risk of poor social determinants of health, the new office and its partners seek to deliver intentional strategies that will support access to healthcare resources for underserved and rural populations, improve culturally and linguistically appropriate communication around healthcare issues, and develop health equity plans to address future public health emergencies at the community and state levels.

During the COVID-19 pandemic, misinformation was widespread about the virus, how it spread, what precautions were necessary, and whether vaccines and treatments were safe and effective. The impacts of this misinformation on insulated racial and ethnic minority populations, as well as the elderly and disabled populations, are currently being studied and evaluated by researchers. Health literacy, both personal and organizational, has been identified as one of the key factors contributing to the poor understanding of COVID-19 mitigation strategies. In 2023, the OHEMH will host a series of health literacy programs to further equip communities to deal with future public health emergencies.

Additional OHEMH activities planned for 2023 include healthcare assessments of unincorporated and rural communities, development of emergency preparedness plans that recognize the distinct needs of specific disabled populations rather than grouping disabled populations into one broad category, COVID-19 testing in communities without access to free testing, development of community ambassadors/trusted community health workers to share public health information and prevention resources, and development of youth leadership groups and community advisory committees that focus on community wellness and prevention.

Bureau of Health Provider Standards

Mission Statement

The mission of the Bureau of Health Provider Standards is to improve quality of care and quality of life for healthcare consumers and to reduce adverse outcomes through the process of licensure inspection and certification of healthcare providers.

The bureau consists of several units that include, but are not limited to, Assisted Living, Medicare Other, Long Term Care, and Clinical Laboratory Improvement Amendment (CLIA). Each unit serves only in its specialty and performs license inspections, unannounced surveys for complaints and compliance, and certification surveys when required. Provider Services processes applications for initial licensure, certification, change of ownership, annual license renewal, and changes in provider information.

Medicare Other

The Medicare Other Unit was not able to complete all of the FY2022 Centers for Medicare and Medicaid Services (CMS) workload due to the impact of the COVID-19 pandemic. In May 2021, the bureau began conducting normal recertification survey activity for Home Health, Hospice, and End Stage Renal Disease Treatment Centers. The bureau has been able to conduct initial licensure, initial certification, Emergency Medical Treatment and Labor Act, and immediate jeopardy/complaint surveys. Workload remains backlogged due to the COVID-19 break in regular survey activity between March 2020 and May 2021 and a subsequent increase in complaints and survey requirements.

Long Term Care

The Long Term Care (LTC) Unit, during FY2022, completed 72 of the 229 CMS standard surveys and investigated 313 complaints and facility reported incidents. The statewide average interval requirement between consecutive standard health surveys must be 12.9 months or less. In FY2022, the statewide average was 17.9, as the result of low staffing, the COVID-19 pandemic, suspension of CMS surveys in March 2020, and the requirement to conduct infection control surveys of long-term care facilities. The LTC Unit conducted 46 infection control surveys. In FY2022, four licensure and certification surveyors were hired in the Long Term Care Unit. Surveyors will complete basic long-term care training and participate in the Surveyor Minimum Qualifications Test to conduct federal surveys of nursing homes.

Assisted Living Facilities (ALFS)

The ALF Unit is responsible for ensuring ALFs and specialty-care assisted living facilities (SCALFs) maintain compliance with rules set forth by the State Board of Health. In FY2022, the ALF Unit completed 60 surveys of ALFs, and 29 of SCALFs, 7 investigations of

care and initial surveys, and 1 investigation of an alleged unlicensed facility. Additionally, the ALF Unit investigated 131 complaints.

For FY2022, the ALF Unit has maintained oversight of 192 licensed ALFs and 107 licensed SCALFs. Seven facilities were issued probational licenses.

CLIA Laboratory

Any laboratory performing clinical laboratory tests for the purpose of diagnosis, treatment, or prevention is required to be CLIA certified. CLIA offers four types of certificates commensurate with the complexity of testing performed at the laboratory: Certificate of Waiver, Certificate of PMP (Provider-performed Microscopy Procedures), Certificate of Compliance (for high and/or moderate complexity testing), and Certificate of Accreditation (for high and/or moderate complexity testing).

CLIA serves to assess how clinical laboratories monitor their pre-analytic, analytic, and post-analytic systems to ensure the quality of testing provided for the patients/clients. Although CLIA's main objective is to determine a laboratory's compliance with the regulations, CMS CLIA seeks to aid the laboratories in improving patient care by promoting an educational survey process. In February 2022, CLIA increased its surveyor pool by two full-time surveyors; and now currently serves Alabama with three full-time surveyors. The suspension of surveys from March to September 2020, due to the COVID-19 pandemic, caused a significant backlog of surveys, usually performed in alternate years. The pandemic

Figure 46. Summary of Licenses and Investigations

Facility Type	Total Complaints Investigated	Facilities with Probational Licenses
Abortion Centers	0	0
ALFs/SCALFs	131	7
Ambulatory Surgical Centers	0	0
End Stage Renal Disease Treatment Centers	0	0
Home Health Agencies	0	0
Hospice Agencies	5	0
Hospitals	15	0
Independent Laboratories	3	0
Nursing Homes	313	0

increased the responsibilities of the CLIA Unit, especially due to numerous laboratories implementing COVID testing; as well as special-focused surveys protocol implementation by CMS.

Despite the many challenges faced, CLIA successfully completed 235 recertification and initial surveys for FY2022 and finished the year at 83 percent completion of usual on-site survey processes (235/284 laboratories included in CMS’s Budget Call Letter). The CMS Regional Office technical consultant conducted federal monitoring surveys for each of the new surveyors on staff and found no deficits in the surveyors’ performance. Three surveyors and the supervisor participated in the annual CLIA training via Zoom.

Not only is CLIA responsible for laboratories with CLIA certifications, but also laboratories in the state of Alabama licensed and seeking licenses as independent clinical and independent physiological laboratories. The public health emergency caused a backlog of licensure surveys as well.

Due to persistence and hard work, the CLIA Unit drastically reduced the backlog of both licensure and federal surveys.

Provider Services License and Certification

Certification: There are 1,109 certified facilities and agencies in Alabama.

Licensure: There are 1,757 licensed facilities in Alabama. The Provider Services License Unit has continued to process applications for initial facility licensure and license amendments. There were 130 licenses processed for FY2022.

Figure 47. Licensed Health Care Facilities and Agencies

Abortion or Reproductive Health Centers	5
Ambulatory Surgical Centers	55
ALFs	191
Cerebral Palsy Centers	1
End Stage Renal Disease Treatment Centers	180
Freestanding Emergency Departments	8
Hospice Agencies	183
Hospitals	118
Independent Clinical Laboratories	559
Independent Physiological Laboratories	75
Nursing Homes	229
Rehabilitation Centers	29
SCALFs	107
Sleep Disorder Centers	17
Total	1,757

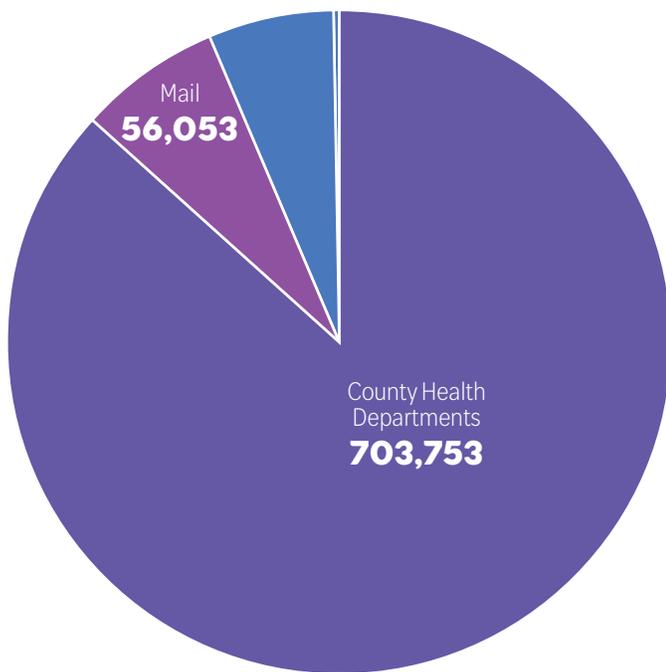
Center for Health Statistics

The Center for Health Statistics operates the vital records system and collects and tabulates health-related statistical data for the state of Alabama. The center files, stores, and issues certified copies of vital records including birth, death, marriage, and divorce certificates for events that occur in Alabama. In addition to registering vital records and issuing certified copies, the center corrects and amends birth and death records and creates new certificates after legal actions. The center consists of the following divisions: Administrative Services, Quality Assurance and Registration, Record Services, Special Services, and Statistical Analysis.

An automated vital records system called VISION, or Vital Statistics Image Oriented Network, allows vital records to be issued in all Alabama county health departments. Customers can obtain vital records from the center through county health departments usually within 30 minutes or less. Customers may also order records over the Internet, by telephone, or by regular mail.

More than 190,635 vital records were registered with the center in 2022. All birth records are registered electronically, and approximately 96 percent of divorce and 99 percent of death certificates are

Figure 48. Certified Copies of Vital Records Issued, 2022



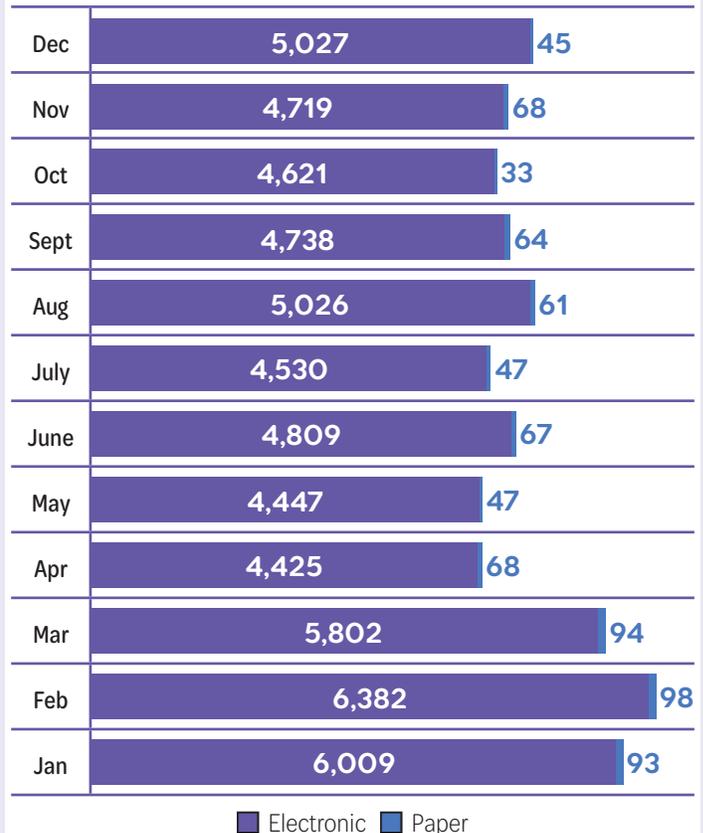
The center issued 810,569 certified copies of vital records through county health departments, mail, Internet, and operator-assisted requests.

■ Internet 49,342 ■ Operator-Assisted 1,421

registered electronically. The center continues to increase the number of death records registered through the Electronic Death Registration System (EDRS), which allows families to obtain certified copies more quickly. A significant component of EDRS, the Supplemental Medical Certification, allows medical certifiers to electronically make changes, corrections, or additions to the cause of death information on a death certificate. Nearly 2,100 supplementals were completed electronically in 2022. Other changes to vital records are made in the center by the Special Services Division, which created approximately 5,240 new birth certificates following adoption or parentage determination and amended approximately 3,030 birth certificates and 1,240 death certificates

The center's Statistical Analysis Division conducts studies and provides analyses of natality, pregnancy, general mortality, infant mortality, causes of death, marriage, divorce, and other demographic and health-related data for public health policy and surveillance. Results are distributed through numerous publications, reports, presentations, special tabulations, and the department's website to the public, news media, researchers, government or private agencies, and various units within the department.

Figure 49. Death Registration, 2022



■ Electronic ■ Paper

Figure 50. Vital Statistics, 2021

	Number	Rate/Percent	
Births	58,040	11.5	(Per 1,000 Population)
Births to Teenagers	3,700	11.6	(Per 1,000 Females Aged 10-19 years)
Low Weight Births	6,070	10.5	(Percent of All Live Births)
Births to Unmarried Women	26,950	46.4	(Percent of All Live Births)
Deaths	68,760	13.6	(Per 1,000 Population)
Marriages	38,192	7.6	(Per 1,000 Population)
Divorces	18,158	3.6	(Per 1,000 Population)
Induced Terminations of Pregnancy	8,294	8.5	(Per 1,000 Females Aged 15-44 years)
Infant Deaths (Neonatal + Postneonatal)	443	7.6	(Per 1,000 Live Births)
Neonatal Deaths (0-27 days of life)	232	4.0	(Per 1,000 Live Births)
Postneonatal Deaths (28-364 days of life)	211	3.6	(Per 1,000 Live Births)

Total estimated state population is 5,039,877.

Figure 51. Alabama's Leading Causes of Death, 2021

Cause of Death	Rank	Number	Rate ¹	Population
Total Causes of Death		68,760		5,039,877
Heart Diseases	1	15,144	300.5	
Malignant Neoplasms	2	10,412	206.6	
Coronavirus Disease 2019	3	9,468	187.9	
Accidents	4	3,443	68.3	
Cerebrovascular Diseases	5	3,359	66.6	
Chronic Lower Respiratory Diseases	6	3,278	65.0	
Alzheimer's Disease	7	2,724	54.0	
Diabetes Mellitus	8	1,654	32.8	
Septicemia	9	1,183	23.5	
Nephritis, Nephrotic Syndrome, and Nephrosis	10	1,161	23.0	
Chronic Liver Disease and Cirrhosis	11	1,040	20.6	
Influenza and Pneumonia	12	1,032	20.5	
Suicide	13	821	16.3	
Essential (Primary) Hypertension and Hypertensive Renal Disease	14	768	15.2	
Homicide	15	744	14.8	
All Other Causes, Residual		12,529		

¹Rate is per 100,000 population.

Office of HIV Prevention and Care

The mission of the office, in collaboration with community partners, is to reduce the incidence of HIV infections, increase life expectancy for those infected, and improve the quality of life for persons living with or affected by HIV. Reducing new HIV infections by 75 percent in 5 years and by 90 percent by 2030 are the goals of Ending the HIV Epidemic: A Plan for America (EHE), with multiyear funding appropriations directed to highly impacted communities nationwide.

An EHE Community Planning Committee of statewide stakeholders participated in every phase of developing the strategic plan. The comprehensive needs assessment and community engagement process revealed some overarching themes for the Alabama blueprint plan to include:

- Stigma
- Education
- Lack of resources
- Cultural considerations for improving health outcomes in Alabama

The committee will continue to have virtual monthly meetings to assess community needs and monitor the plan implementation activities of the EHE Branch. In addition, four new voices have been added to assist in this new initiative.

Alabama continues to experience an HIV epidemic of moderate magnitude when compared to other states. A cumulative total of 23,336 HIV infections have been diagnosed among Alabama residents since reporting began in 1982. As of December 31, 2022, 14,811 individuals in Alabama had been diagnosed with HIV.

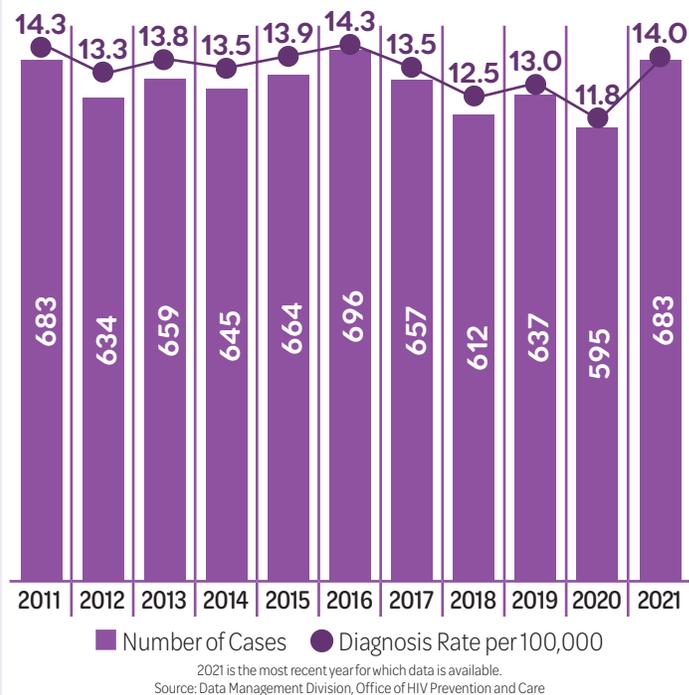
As of December 28, 2022, the office served 3,808 clients through the Alabama Drug Assistance Program (ADAP). Of that number, 1,069 uninsured individuals received ADAP-funded medications; 2,678 individuals were provided ADAP-funded health insurance; and 61 individuals were provided ADAP-funded Medicare Part D prescription insurance. Presently, 17 providers receive funding through the department to provide core medical and support services to HIV clients.

The chart below represents reported cases for the past 10 years. A total of 683 HIV/AIDS cases were reported to the HIV Surveillance Branch, Data Management Division, in 2021. The case count rate is 14.01 cases per 100,000 population. New HIV/AIDS cases were

highest among blacks (414 cases) and lowest among Hispanics (30 cases) and whites (200 cases). Forty-four percent of the HIV/AIDS cases reported in 2021 were residents of Jefferson (156 cases), Montgomery (60 cases), and Mobile (85 cases) counties.

Alabama has been identified as one of the priority jurisdictions targeted for Phase I of the EHE Initiative. The plan is the product of a collaborative process conducted through community meetings, focus groups, surveys, and provider interviews. HIV prevention and care providers, people with HIV, and other community members participated in all data collection phases. Social determinants of health were given special consideration in the design of the plan so that its interventions might reach Alabama's priority populations through community collaboration, and new and innovative prevention and care activities.

Figure 52. Newly Diagnosed HIV/AIDS Cases, Alabama, 2011-2021



Bureau of Home and Community Services (HCS)

The department's Homecare Program began serving the citizens of Alabama in 1967. HCS administers statewide home care services and remote patient monitoring to patients, majority homebound. The bureau's mission is to deliver high-quality services and compassionate care provided by competent and professional staff to patients in the home and community settings throughout Alabama.

Patients Served

HCS currently has 24 branch offices across the state responsible for coordinating care between patients, caregivers, and their physicians. HCS administered statewide services to 5,714 patients of all ages from pediatric to geriatric. In fact, HCS is currently the only agency offering pediatric home care in the state of Alabama.

Figure 53. Home Health Patients Served by County, FY2022

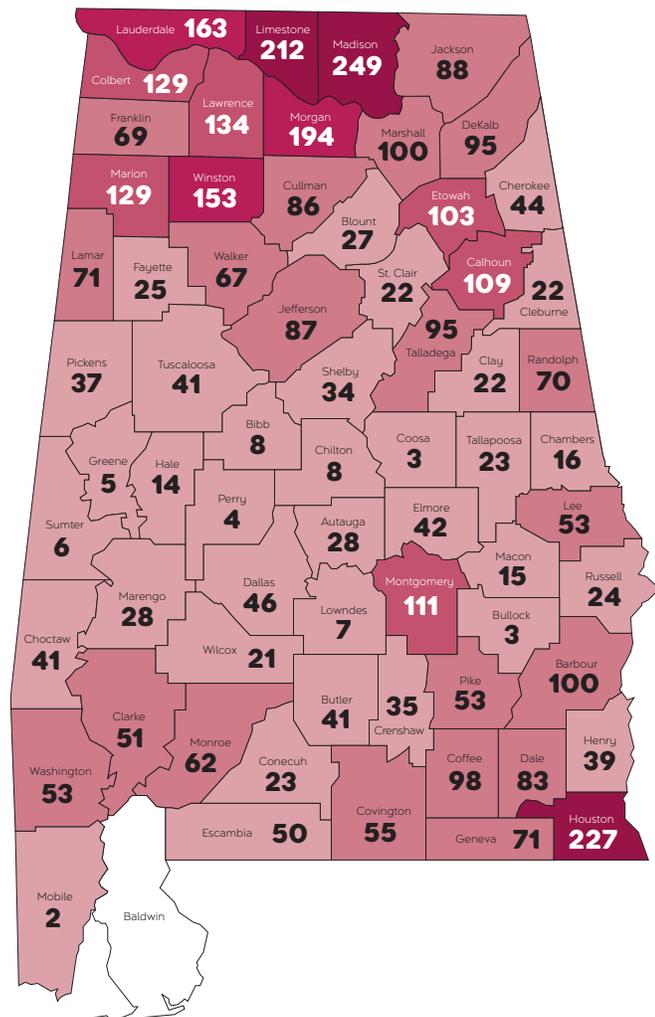


Figure 54. Patients Served by Program, FY2022

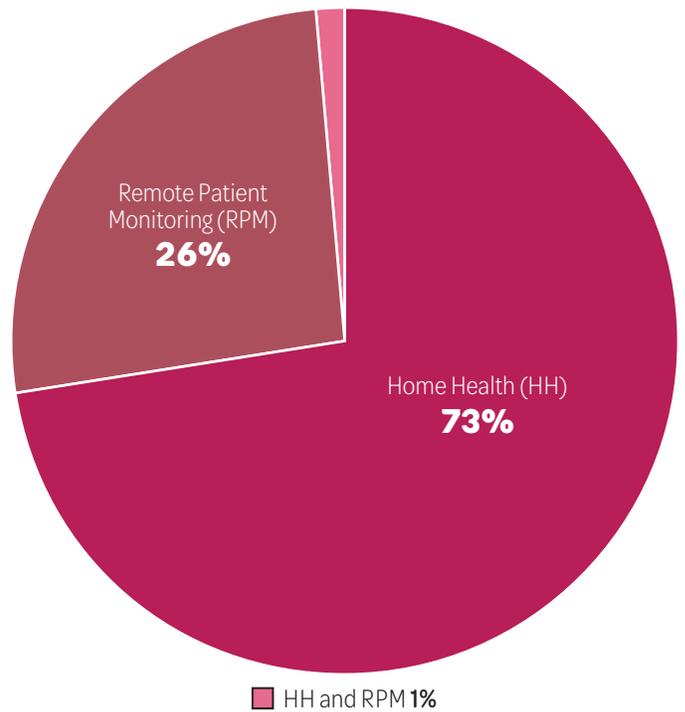
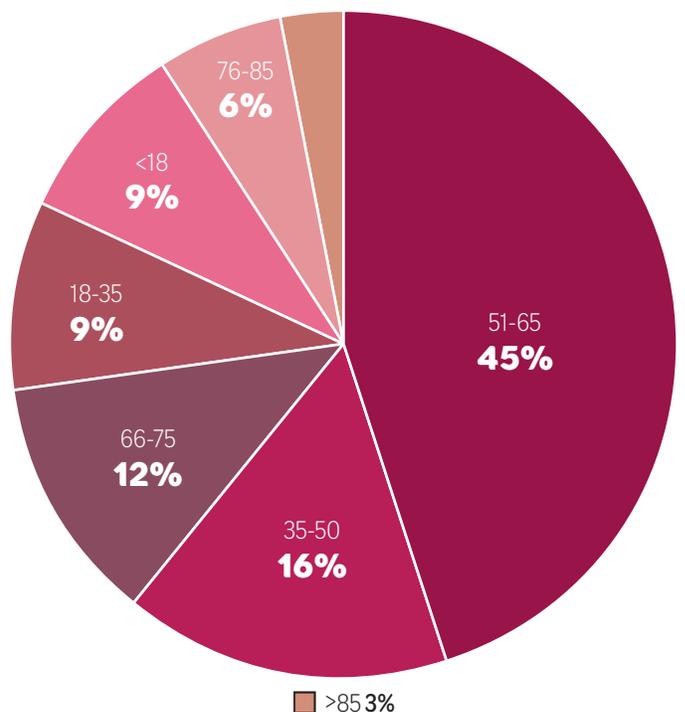


Figure 55. Home Health Patients Served by Age Group in Years, FY2022



Home Care Services

Home care services are prescribed by a physician based on medical need. Services are provided by registered nurses, licensed practical nurses, home health aides, and therapists.

Services include:

- Skilled nursing
- Personal care
- Wound care
- Intravenous therapy
- Diabetic care
- Cardiovascular care
- Post hospital assessment and teaching
- Urinary catheter management
- Physical therapy and medical social worker

Nurses, aides, and therapists of HCS provided a total of 162,678 home care visits statewide to patients covered by Medicare, Medicaid, and other insurance providers this year.

According to Alabama Medicaid Agency’s Statistical Support Unit, a statewide total of 199,593 visits from multiple home care agencies were provided to Medicaid-eligible homebound patients in FY2022. HCS served 146,484 of those visits, 73 percent of Alabama Medicaid Agency’s combined statewide total.

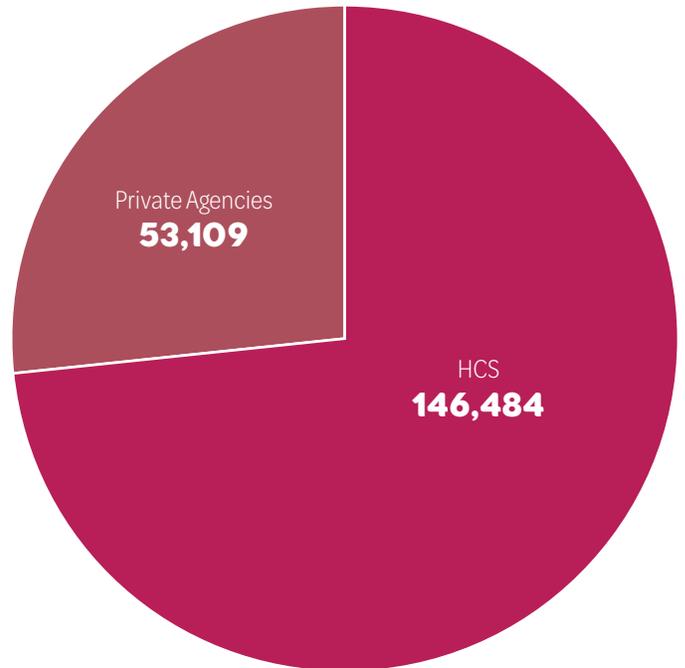
Remote Patient Monitoring (RPM)

The RPM Program combines resources from the department’s Home Care, Alabama Medicaid Agency, and the University of South Alabama to provide in-home monitoring service for specific chronic illnesses. Medicaid-eligible patients who have congestive heart failure, diabetes, and hypertension qualify for the in-home monitoring program. The goal of RPM is to decrease exacerbation episodes, emergent care visits, hospital admissions, and costs. HCS’s RPM managers provided a total of 17,137 RPM service hours.

Figure 56. Home Health Visits by Discipline and Payor, FY2021

	Medicare	Medicaid	Other
Home Health Aide	2,674	68,274	1,336
Medical Social Worker	7	34	3
Physical Therapy	2,191	0	747
Skilled Nurse	5,942	78,176	3,294

Figure 57. Alabama Medicaid Home Health Visits Statewide, FY2022



Office of Human Resources (OHR)

OHR worked diligently to ensure requests for personnel actions, leave reports, State Employee Injury Compensation Trust Fund claims, disciplinary actions, revised personnel policies, and other personnel-related activities were done in a timely manner. For this reason, a position was established in most public health districts to provide districts with more direct human resources assistance and to streamline the processing of personnel transactions. These district human resources assistant positions are part of OHR but are based in the districts. They serve as the point of contact for hiring requests, performance appraisals, employee separations, and various other human resources matters in the district where they are based, and OHR paperwork is routed through them for review. This is the first time any OHR positions have been based in locations other than the Central Office, and the change has proven to be beneficial to the districts and to the office.

In the fall of 2022, OHR continued its training and development programs and offered soft skills training to approximately 1,623 employees to improve their knowledge and skills.

- Conducted “Interview and Selection” training for 195 supervisors
- Conducted “Performance Appraisal” training for 194 supervisors
- Conducted “The Discipline Process” training for 196 supervisors
- Conducted “Family Medical Leave” training for 198 supervisors
- Conducted “Understanding Yourself” training for 333 department employees

- Conducted “Work Life Balance” training for 155 department employees
- Conducted “Dealing with Difficult People” training for 91 department employees
- Conducted “Customer Service and Communication Skills” training for 64 department employees
- Conducted “How to Work with a Multigenerational Workforce” training for 140 department employees
- Conducted “Excel I” training for 205 department employees

Figure 58. 2022 Personnel Actions Processed for Merit Employees

New Hires	455
Promotions	274
Dismissals	98
Transferred Out	79
Resignations	273
Employee Assistance Program Referrals (employees and dependents)	128
Hours of Leave Donations	1,901.30
Annual Appraisals	1,881
Probationary Appraisals	604

Bureau of Information Technology

The mission of the Bureau of Information Technology (IT) is to plan, provide, and support the information and logistics needs of the department. The bureau consists of five divisions which procure, develop, and support information technology systems to supply information to department and public users through an integrated information processing and telecommunication structure.

Logistics

The Logistics Division manages the department’s property assets, forms, mailroom services, and vehicles. This division has the statewide responsibility of auditing every piece of accountable property assigned to the department. This division is also responsible for the pickup and proper handling of all the departmental salvage or surplus property. Requests for salvage/surplus pickups have continued to increase during the past year. In addition, a procedural change was implemented to require that all laptops be logged or checked in monthly to be inventoried and to receive any new software updates.

Technical Support (TS)

The TS Division’s TS Network Security Team completed the conversion of departmental computers/laptops to Cisco Endpoint Security, as well as completed the implementation of a new web filter called Cisco Umbrella. The team also collaborated with the Alabama Office of Information Technology and an IT consulting firm to conduct a technical penetration test on all departmental internal and external networks and devices. This test also included an active directory security assessment, public (internet-facing) website content, public key infrastructure security assessment, and vulnerability scans. The penetration test and scans allowed the team to identify possible areas of vulnerability. The TS staff are currently in the process of remediating the deficient areas identified

Figure 59. Logistic Support Facts – 2022 and 2021 Comparison

Logistics Items Reported	2022 Quantities	2021 Quantities
Equipment Inventory Items	23,158	24,505
Equipment Inventory Value	\$58,466,871.28	\$57,343,319.90
Forms Managed	1,008	1,150
Form Packages Sent	7,682	6,843
Promotional Items Managed	1,036	900
Department Vehicles	56	60
Emergency Response Vehicles, Trailers, etc.	92	86

during this scan. In addition, the team also upgraded the hard drive encryption version on all laptops and implemented new and more secure departmental password and browser policies. TS completed the replacement of all wireless access points and VoIP phones in the county health departments. They also replaced 50 percent of the VoIP phones in the RSA Tower and all of the wireless access points. The TS Tower Support Team and County Support Team continued to provide IT equipment relocation support to several bureaus and offices that needed all or most of their IT equipment moved internally to other floors within the Tower. The team did a statewide implementation of Cisco WebEx, a new video conferencing solution for the department. This solution allows users to conduct secure business meetings, calling, and messaging without travel considerations. Cisco WebEx also allows the department to create secure collaboration among team members. The team completed the implementation of RightFax in all county health departments. The RightFax solution allows users to securely send paperless digital faxes via the cloud. Another project completed by the team was the implementation of Microsoft OneDrive. Microsoft OneDrive allows approved users to store data and files in cloud storage. The implementation of these two solutions will allow the department to operate more efficiently and securely. Other projects started in 2022

Figure 60. IT Support Facts – 2022 and 2021 Comparison

IT Support Items Reported	2022 Quantities	2021 Quantities
Help Desk Calls	29,601	31,056
Personal Computers/Laptops Supported	5,979	5,733
Windows Servers Supported	417	402
WAN Routers/Switches/Access Points/ IP Phones Replaced	4,288	2,708
WAN Support Completed Work Orders	2,804	3,232
IP Phone Devices Supported	5,107	5,079
Windows 2016/2019 Servers Deployed	46	45
Smart Phones/Hot Spots Supported	1,800	1,751
TS Projects Completed	7	19
Voice Mail Boxes Supported	2,817	2,771
Statewide Antivirus Conversions	2,960	3,231
IP Gateways Supported	79	78
WAN Support Miles Driven	115,462	131,673

but scheduled to be completed in 2023 are as follows: Replacing legacy video conference units with 75-inch screens with Cisco room kits, replacing the dual monitors on telemedicine units statewide with Cisco Desk Pro integrated with WebEx, and replacing all county health department Windows 2016 servers with new Windows 2019 or Windows 2022 servers. See IT Support Facts - Figure 60.

Database Administration (DA)

The DA Division is responsible for managing the relational databases for the department. This includes aiding developers in the design of relational database models, creating the database objects, installing database software, managing database resources, training users on the Relational Database Management System (RDBMS), training users on related database subjects, and establishing procedures, standards, and policies to be followed by the developers and users of these relational databases. DA develops scripts to be used in PL/SQL, stored procedures, packages, package bodies, functions, and triggers which support the correctness and consistency of departmental data stored in MS SQL and Oracle RDBMS. DA manages and monitors over 460 Oracle and MS SQL databases for performance issues daily. Below are a few of DA's major enhancements or upgrades for 2022:

- Upgraded the Lab Neometric (Newborn Screening) database servers to Windows 2019 and Oracle 19
- Upgraded the Lab Information Management System (LIMS) database servers to Windows 2019 and Oracle 19c
- In the process of upgrading the National Electronic Disease Surveillance System database servers to Windows 2019 and SQL 2019
- In the process of upgrading the Lab Perkin Elmer database servers to Windows 2019 and SQL 2019
- Created a new SQL database server to house the new RightFax system
- Created two additional SQL database servers to house reporting services for the Neometric system.

Business and Information Architecture (BIA)

The BIA Division continues to look for ways to enhance and improve user experience, functionality, security, and responsiveness of the different systems supported. Described below are a few of the notable accomplishments of the BIA teams for 2022:

The IT Interface Engine (Rhapsody), supported by the Promoting Interoperability (PI) team, processed the following message counts from January to December 2022:

- Immunization (IMM) – 179,187,354 (2022) versus 52,700,000 (2021) messages
- Electronic Lab Reporting (ELR) – 1,448,255 (2022) versus 1,154,000 (2021) messages
- Syndromic Surveillance (SS) – 22,969,224 (2022) versus 14,600,000 (2021) messages

The number of IMM, ELR, and SS messages received increased significantly in 2022.

The Systems Management Team (SM) updated many of the COVID-19 dashboards based on departmental feedback provided by epidemiologists and Health Administration. The team changed the reporting cycle, format, and content of the dashboards based on this feedback. This team initiated a project to upgrade all departmental e-mail servers to the latest version of HCL Domino. This team also developed training for WebEx users and HCL Notes users (e-mail, calendar, and scheduling) that will be offered during 2023.

The SM Team worked with epidemiologists to get the Tableau public server ready for use and they completed the first draft of the blueprint which is a set of rules or guidelines for using the Tableau tool securely.

The SM Team also worked with the Bureau of Financial Services and Office of General Counsel to replace the Automated Contract Entry System (ACES) with a new system called the Public Health Instrument Management System (PHIMS).

The Laboratory Information Management System (LIMS) Team integrated the Electronic Test Order/Results interface with the Medical Advocacy and Outreach clinic. With this, LIMS is now interfaced with three major electronic medical record systems. This team upgraded LIMS to version 12.9, which transitioned from a third-party reporting tool (Actuate Reports) to a robust, more efficient, integrated reporting tool (Telerik Reports). With this upgrade, the number of servers requiring maintenance was reduced to three (App server, DB server, Clinical Document Repository server). Horizon LIMS's native American Society for Testing and Materials (ASTM) solution was also implemented for a bi-directional instrument interface to run CT-GC/TV testing at both Prattville and Mobile laboratories. ASTM is an internationally recognized set of standards used in conjunction with different specimen testing methods.

Toward the end of 2022, the LIMS Team upgraded LIMS again to version 13.2. This version allows the laboratory to take advantage of new and improved features and speed enhancements within the LIMS to provide a better end-user experience. During this most recent upgrade, all historical final reports were converted and stored within the LIMS database, reducing maintenance, and decreasing the number of servers needed to support the LIMS to just two servers, the App and DB servers.

The Immunization Patient Registry (ImmPRINT) Team made numerous upgrades to the ImmPRINT system. The team completed development of the Vaccine Ordering Management System (VOMS) for the VFC Program which enables providers to enroll in the program, order VFC vaccines, and report returns and wastages for VFC vaccines following CDC guidelines and program requirements. Additionally, VOMS provides a dashboard for the department's Program Team to generate and process inbound and outbound files for the provider's enrollments, vaccine orders, on-hand inventory, vaccine returns, vaccine wastages, and vaccine shipments data to the CDC via the CDC's external information system known in Alabama as ImmPRINT. During 2022, the team developed and implemented a COVID-19 marketplace module in ImmPRINT enabling COVID-19 providers to advertise their excess COVID-19 vaccine lots to the nearby providers within their districts. This allowed all providers to make better use of the vaccine provided to the state. A mass vaccinator module 3

was developed and implemented in ImmPRINT enabling COVID-19 providers to have a secure and efficient mechanism to submit COVID-19 vaccination information in a mass vaccination setting. The team also completed the automation of mpox vaccine reporting specifications to the CDC, which is done on a weekly basis.

The Financial Services Support Team works with all financial applications. The team enhanced the TimeTrac System by incorporating the employee weekly leave document (EWLD). This allows for better accounting of leave balances, timely annual rate accrual increases, and a significant reduction in the volume of paper leave documents handled. The team modified the Finance Accounting and Cost Tables (FACT) to generate job cost documents and same-day processing in SQL server. These transactions no longer use the mainframe.

The Environmental Services Team completed enhancements to the rabies prevention and control module in the Environmental Services System. These enhancements facilitate tracking and reporting of animal bite cases. Shown at right are the numbers of cases reported by district for the specified time period.

Figure 61. Rabies and Animal Control Cases Processed

5,788 Cases Processed - January 1 -December 30, 2022

East Central	763
Mobile	684
Northeastern	993
Northern	1,841
Southeastern	442
Southwestern	557
West Central	508

Bureau of Prevention, Promotion, and Support

Behavioral Health

Child Passenger Safety

The Alabama Child Passenger Safety Program provides education to caregivers on how to use child safety restraints correctly, recruits individuals to become child passenger safety technicians, and establishes and maintains car seat fitting stations statewide. Through partnerships with Georgia and Tennessee, three departmental staff members were trained as certified child passenger safety technician course instructors, enabling the department to launch its statewide Child Passenger Safety Training Program, and add two new car seat fitting stations. The program hosts a monthly car seat clinic, available by appointment only, to educate caregivers, check car seats, and provide car seats to individuals who otherwise would not be able to obtain one. Throughout the year, information was distributed to 116 families who attended the car seat clinic.

Rape Prevention and Education

The Rape Prevention and Education Program, funded by CDC, provides prevention of sexual violence perpetration and victimization by decreasing sexual violence risk factors and increasing protective factors for the general population through community level interventions in communities across Alabama through a grant to the Alabama Coalition Against Rape (ACAR). The Preventive Health and Health Services Block Grant aims to reduce the incidence of rape and sexual violence in the state among adolescents between the ages of 10 and 18 through the implementation of prevention strategies that promote social norms, teach skills that enhance empathy and communication, and create protective environments in 32 counties through grants to ACAR and 7 rape crisis centers.

Surveillance and Prevention

Two of this branch's three programs review various types of deaths that occur in Alabama, and all have a primary focus of prevention. Prevention strategies are developed, and programs are enhanced or implemented based upon the findings of reviews, trends and characteristic analyses, and identification of risk factors. A third program conducts inspections at all Alabama retailers that sell tobacco in an effort to keep minors from purchasing tobacco.

Alabama Violent Death Reporting System (AVDRS)

AVDRS is a state-based mortality surveillance program that collects data on violent deaths. In addition to standard demographics and cause and manner of death, the program collects descriptions of events and known circumstances contributing to violent deaths. The program's data providers include law enforcement agencies, coroners/medical examiners, the Alabama Department of Forensic Sciences, district attorneys, and the OEMS. The mission of AVDRS is to assist the department and other prevention agencies by providing

information on the trends and characteristics of violent deaths. The goal of the program is to guide and inform public health policy and violence prevention programs in the state. In 2022, AVDRS collected data for the 2021 calendar year and saw an increase in the number of deaths from 1,411 in 2020 to approximately 1,620 deaths in 2021.

Figure 62. AVDRS - Manner of Death Per Calendar Year

Manner of Death	2019	2020
Suicide	802	767
Homicide	580	630
Undetermined	33	36
Unintentional Firearm	26	18

AVDRS works closely in collaboration with the Overdose Data to Action Grant to assist the Alabama State Unintentional Drug Overdose Reporting System conduct surveillance of drug overdose deaths in the state. Through this collaboration, more timely and comprehensive data on drug-related deaths can be provided in the state. To assist one of the program's key data providers, coroners and medical examiners, AVDRS has sponsored training for 24 coroners and medical examiners. The training included report writing, determining time of death, and cause and manner of death.

Child Death Review

The Alabama Child Death Review System (ACDRS) reviews and identifies unexplained or unexpected child deaths in Alabama with the purpose of developing strategies to prevent such deaths from occurring. Forty-two local child death review teams throughout the state review child death cases each year. Many of the local review teams faced challenges over the past 2 years due to the pandemic. Those challenges included limited in-person meetings and delays in receiving reports from team members. For the 2020 reporting year, there were 286 reviewable cases; that number increased to 335 reviewable cases for the 2021 reporting year. Motor vehicle incidents; sleep-related deaths; and firearm, weapons, and assault-related deaths remain the three leading causes of death for children in Alabama.

In September, ACDRS sponsored a week of training for law enforcement, coroners, child advocates, and social workers. The Sudden Unexpected Infant Death Investigation training included death scene re-enactment and scene reconstruction. Thirty attendees, made up of members of law enforcement and coroners, received training on how to better document and investigate infant and child deaths and child abuse cases. Attendees received investigation kits to take back to their jurisdictions to use when investigating cases.

The program continues to partner with the University of Alabama at Birmingham and the University of South Alabama on prevention efforts in the state. Through awareness, education, and prevention efforts, ACDRS continues to work to make strides that reduce child deaths in Alabama.

FDA Tobacco Inspection Program

The FDA Tobacco Inspection Program works with the FDA's Center for Tobacco Products to conduct inspections at all Alabama retailers that sell tobacco in an effort to keep minors from purchasing tobacco and to ensure tobacco permit holders comply with the requirements of the Tobacco Control Act.

In FY2022, staff conducted 77 advertising and labeling inspections of all tobacco retailers in the state to ensure they are following federal law when advertising, displaying, and selling regulated tobacco products. The department's subgrantee, the Alabama Law Enforcement Agency, conducted 2,498 undercover buys by accompanying minors who attempt to make a tobacco purchase. Every tobacco retailer in the state is inspected with the assistance of a trained, age-appropriate, undercover minor to determine if the teenager can purchase tobacco products in violation of the Tobacco Control Act of 2009. The program has 2 credentialed advertising and labeling inspectors and 27 undercover buy inspectors. As of December 2022, the program had conducted 2,575 inspections with a combined violation rate of 9 percent.

Youth Tobacco Prevention

The Youth Tobacco Prevention Program was awarded approximately \$939,631 to implement a grant program to effect social norm change around tobacco use, address the marketing of emerging products to youth, promote policies that protect youth from nicotine initiation and exposure to secondhand smoke, and promote tobacco cessation. Youth Tobacco Prevention Program grantees delivered 302 presentations based on the Stanford Medicine Tobacco Prevention Curriculum. In conjunction with the presentations, 7,868 pre/post tests were completed by youth in Grades 6-12. Youth Tobacco Prevention Program grantees organized or participated in 200 community awareness activities such as local coalition meetings, health fairs, and National Kick Butts Day. Social media played a very important role in educating individuals since in-person information was limited. Approximately 421,000 individuals were reached through the Alabama You Choose and departmental Facebook pages and departmental tobacco-related websites.

In partnership with a local media company, the youth program's mass media campaign launched in July 2022. The message was aimed at addressing the youth vaping epidemic. This campaign was successful and yielded approximately 7,741,991 impressions through television, social media, and streaming services. On television, the media spot was aired 113,562 times on 67 networks targeting youth. There were 3,612,500 impressions on streaming services with a 98.47 percent (3,554,700) video completion rate. Social media yielded 4,129,491 impressions.

Tobacco Prevention and Control

Tobacco use continues to be the leading cause of preventable death in Alabama, killing in excess of 8,600 smokers and costing the state

more than \$1.9 billion in direct medical expenses to treat smoking-related diseases each year. The Tobacco Prevention and Control Program works to help tobacco users quit, prevent youth and young adults from starting tobacco use, and protect people from exposure to secondhand smoke. The program utilized resources to help quit by obtaining Medicaid reimbursement for Quitline services, a \$428,166 grant from CDC to build Quitline capacity, and \$598,339 in state funds to provide up to 8 weeks of nicotine replacement therapy patches, conduct targeted outreach efforts, and support the Alabama Tobacco Quitline. The Quitline averages 3,468 calls per month and a texting portal was added in 2022. The program also utilized \$340,250 from CDC grant funds to implement evidence-based, mass-reach media efforts to advertise for the Quitline and to bring public awareness to the dangers of secondhand smoke exposure and menthol use.

Center for Emergency Preparedness (CEP)

Under Emergency Support Function 8, CEP has the responsibility for coordinating preparedness and response actions for the department during public health emergencies. CEP is funded entirely by federal grants, the Public Health Emergency Preparedness Cooperative Agreement, and Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Program Cooperative Agreement.

- CDC provided \$9,018,331 during FY2022-2023, in a cooperative agreement to provide overall direction to and management of the department's assessment and planning for the department's response to acts of terrorism, outbreaks of disease, and other public health threats and emergencies such as meteorological, geological, chemical, and radiological disasters. This funding is scheduled to end June 30, 2023.
- In addition, CDC provided \$8,148,799 in a Coronavirus Preparedness and Response Supplemental Appropriation to carry out surveillance, epidemiology, laboratory capacity, infection control, mitigation, communications, and other preparedness and response activities due to COVID-19. The CEP, BCL, and ID&O Division collaborated to use these funds in the most efficient manner possible, not knowing this was only the beginning of the funding streams that would be used to fight this pandemic. Funding was set to expire March 15, 2022; however, it was extended until March 15, 2023.
- CDC also provided \$29,676,838 in a Public Health Emergency Response: Public Health Crisis Response (Workforce Development Crisis Response) Grant in FY2021-2023. On March 11, 2021, the President signed into law the American Rescue Plan Act of 2021. It provides additional relief to address the continued impact of COVID-19 on the economy; public health; state, tribal, local, and territorial governments; individuals, and businesses. These funds are to be used to expand, train, and sustain a response-ready public health workforce. This funding was scheduled to end June 30, 2023; however, it has been extended to June 30, 2024.
- The ASPR Hospital Preparedness Program provided \$3,145,268 in a cooperative agreement with the department for FY2022-2023. These funds were designated to enhance healthcare system capability and capacity and preparedness for naturally occurring disasters or acts of terrorism resulting in mass casualties. Most of this funding is used in the Health Care Coalition to fund projects at the local level throughout Alabama. This funding is scheduled to end June 30, 2023.

Health Media and Communications

As the COVID-19 pandemic entered its third year, public health messaging continued to be critical to the department's response. The division endeavored to ensure and maintain transparency and trust from the public during this crucial time. In addition to providing updated COVID-19 guidance on new variants, vaccination and testing sites, and treatments, the year saw the re-emergence of the relatively unknown infectious disease mpox, a national infant formula recall and resulting formula shortage, and weather-related emergencies.

More than 80 news releases were prepared to educate and inform the public about healthy lifestyles and behaviors needed to help prevent infectious and chronic diseases. Staff answered and referred questions from the public, coordinated the dissemination of information from spokespersons to the mass media, and composed and edited a variety of publications and documents. News media outreach covered the virtual dedication ceremony of the Donald E. Williamson, M.D., State Health Laboratory, statewide announcement of the "Share Your Smile with Alabama" children's dental health contest winners, and a celebration of the 25th anniversary of the Children's Health Insurance Program.

Marketing projects included designing professional quality original art for the website, social media, billboards, direct mail, and yard signs. In addition, staff prepared forms, booklets, charts, posters, certificates, and other documents.

Staff continued marketing Count the Kicks, an evidence-based stillbirth prevention campaign focusing on educating expectant parents on the importance of tracking fetal movement in the third trimester, and STD/HIV home specimen collection and laboratory testing kits, available by mail for all Alabama residents, and to selected individuals who are on PrEP therapy.

In addition to traditional media, digital media was employed to reach a wider range of the public. One of the goals of the division's Digital Media Branch is to ensure departmental promotion, education, and dissemination efforts are reaching the broadest possible audience in the quickest, most efficient manner. The branch manages and maintains the department's website and digital promotion efforts, which include the promotion of specific departmental programs, marketing/promotional campaigns, and events; social media networks (Instagram, Facebook, Twitter, and YouTube); and mobile apps. In 2022, Nextdoor was added to its list of social networks.

- In 2022, the branch continued to improve the robust search feature of its website to allow pertinent information related to COVID-19 and other infectious diseases, along with information about the hundreds of programs and services the department offers, to be more easily shared with and searched by website visitors, stakeholders, and patients.
- The branch also continued to work on updating and maintaining location data: name, address, hours, website, for each health department location, including the Central Office, all county health departments where COVID-19 specimen collection and testing take place, and WIC clinics, across online directories, maps, search engines, websites, and other customer-facing platforms, to include Apple Maps, Google Search and Maps, and Facebook.

- The branch assisted the national effort to promote the new 988 Suicide and Crisis Lifeline and the statewide 211 Know Campaign, a joint campaign between the Office of Women's Health Well Woman Program and the Alabama Women's Commission. The branch also promoted the seasonal influenza vaccine, childhood vaccinations, and prevention and vaccination against mpox.
- Promotions of the multimedia communications campaign, "Alabama Unites Against COVID," continued in 2022. The campaign stresses the importance of COVID-19 vaccine as well as testing, speaks to all Alabamians from rural regions to urban areas, and aims to direct them to a new website, alabamaunites.com. The website includes an easy-to-navigate layout with buttons for locating vaccination and testing sites, updated guidance, frequently asked questions, vaccine information, and what to expect when testing for COVID-19.

The Alabama Public Health Training Network (ALPHTN) provides departmental training, educational resources, public information, and emergency response through live broadcasts and production services. ALPHTN hosted educational training in its in-house studio and provided communications support to the department. Widespread use of computer-based platforms and virtual communication continued during 2022, as the COVID-19 pandemic posed challenges to in-person trainings and meetings. A total of 97 video conferences were held during the year. Live virtual conferences and training programs covered these topics: "The Impact of Health Literacy on Underprivileged Communities Training," "Race and Ethnicity Data Collection," "Talking with Parents and Caregivers about Safe Sleep," "Health Equity and Communication Strategies for Nurses and Social Workers," a two-part "Ethics in a Post-COVID World: New Challenges and Familiar Solutions," "What's Up with Adolescents and Pregnancy," and "Improving Lung Health of Patients with Sickle Cell Disease: Alabama Perspective." Statewide staff meetings and updates were also conducted and made available on-demand on the department website.

In July, the division completed its final year of a 4-year agreement serving as a community-based training partner with the Region IV Public Health Training Center located at the Rollins School of Public Health at Emory University in Atlanta, Georgia, and started a new 4-year term. The division works collectively as a network with Emory, along with other partners and technical assistance providers, to improve the ability of the public health workforce to meet national, state, and local needs.

Management Support

The Office of Management Support (OMS) provides leadership and coordination for critical departmental programs such as: Records Disposition Authority, Grant and Budget Management, Policy Clearinghouse, and Competitive Selection Process. Major programs in OMS also include Public Health Accreditation, Strategic Planning, Performance Management, and Quality Improvement (QI).

Public Health Accreditation

The department submitted 123 documents to the Public Health Accreditation Board (PHAB) in August 2022 which initiated the first reaccreditation site visit process. A team of about 30 staff members assisted in selecting documentation and preparing it for submission. In the early review by PHAB, less than 20 percent of documents were

returned for clarification. The PHAB site visit for reaccreditation certification will take place in early 2023.

Strategic Planning

The department's Strategic Plan was updated with specific efforts to pursue in 2022. This shifted the model of implementation to be more inclusive of programs and increase the potential impact. OMS is working on a 2022 report to demonstrate progress and collect suggestions for improvement. The 2023 strategic planning efforts will be collected to be advanced in the strategic priorities.

Performance Management

In late 2019, the department adopted the Results Based Accountability (RBA) model for performance management efforts. RBA is a common-sense approach that encourages a focus on collaborative work with community partners to impact health outcomes. In 2022, performance management staff focused on developing a stronger tie between the department's Strategic Plan and RBA concepts. By leveraging the strategic plan, performance management staff will be able to expand the reach of programs that define stronger performance management and start to understand the potential benefits of implementing RBA within prevention and promotion programs.

QI

QI training continued to be provided to departmental staff, with all trainings being available virtually and, as a result, more frequently. In 2019, QI training was provided 1 day per month with half of the training classes being made available each month. In 2021, all QI training content was provided at least once per month and in time blocks of 1 to 2 hours per training. This made attending the training more feasible for staff who are not located at the Central Office in Montgomery.

QI staff conducted a survey to determine the meaningfulness of the QI training in terms of long-term usefulness of the tools and concepts taught. These data showed that most individuals are using the concepts taught in training 6 months after participating in the training. A small amount of individual feedback was received from staff utilizing different templates. This led to modifications to certain QI tools so that users would be able to easily use the tool for their needs.

Workforce Development (WFD)

The department's Workforce Development (WFD) Program offers training programs and initiatives designed to help departmental employees deliver high quality public health services. The program's goal is to strengthen the performance and capacity of the department's workforce so that the ability to serve customers increases.

Through the WFD Program, staff training is offered on a continuous basis by the department and partners such as the State Personnel Department. Three new soft skills training courses were developed and made available to staff across the state provided by the department's soft skills training team. "Dealing with Difficult People," "Customer Service and Communication Skills," and "How to Work with a Multigenerational Workforce" courses were developed based on training gaps identified through an internal needs assessment survey. A total of 49 soft skills training sessions and 52 supervisory training classes were held in 2022 with 1,764 participants.

The WFD Program offers an integrated, online Learning Management System platform through Healthicity, a healthcare compliance management system. Healthicity's training center module offers 72 courses for various training needs. The platform is also used to provide customized training created by the department.

To recruit and retain a highly skilled workforce, the department supports hosting students enrolled in educational institutions as interns. Through the internship program, individuals are offered an opportunity to make a positive contribution and to develop professional skills and experience. The internship experience offers an opportunity for students to learn about the role and responsibility of public health, earn educational credits, gain valuable work experience, and explore new careers in public health. The department works with various educational institutions to provide nonclinical internship placements throughout the state public health system. Through a partnership agreement with UAB School of Public Health, the department hosts several graduate student interns each year.

Nutrition and Physical Activity

The Nutrition and Physical Activity (NPA) Division provides state leadership and represents the department on issues related to nutrition, physical activity, food access, chronic disease, and wellness. Alabama consistently ranks high among other states for problems related to poor health such as physical inactivity, low fruit and vegetable consumption, obesity, and food insecurity.

The vision for the division is for Alabamians of all ages to embrace a culture of healthy choices as their normal way of life. The following initiatives are coordinated by NPA to support healthy behaviors and improve food access in adults and youth:

- Recognized as the state's largest health and wellness program, Scale Back Alabama is available to worksites and organizations as a free, inclusive, wellness program that helps Alabamians improve their health by eating better and being active. While the competition portion of the program ended in 2022, Scale Back Alabama continues as a self-guided, self-paced program with resources that are still useful to those who wish to achieve a healthy lifestyle. There are health tips, a blog, and other educational materials to assist with achieving health goals.
- In 2022, the State Obesity Task Force was transformed into the Alabama Wellness Alliance (AWA) with a new brand, mission, and purpose, moving away from its sole focus on obesity. AWA functions as a volunteer membership organization that seeks to create a healthier Alabama through networking with peers and state and community leaders to stay abreast of emerging recommendations for healthy lifestyles. Members of AWA work together to lead efforts to implement a unified strategy to improve health outcomes in Alabama through policy, system, and environmental changes that support better nutrition choices and regular physical activity.
- The Healthy Wellness Initiative is a collaboration between NPA and the Alabama Department of Education to provide wellness, nutrition, and physical activity training, technical assistance, and information to the 21st Century Community Center Learning Program and Dependent Care grantees. In 2022, multiple trainings and presentations were conducted with after school programs around

the state to provide resources and curricula that teach healthy nutrition and physical activity habits to teachers and students.

- In Alabama, 1 in 7 adults and 1 in 5 children struggle with hunger. Many food-insecure households include one or more family members living with a chronic disease such as high blood pressure or diabetes. Frequently, the time and money spent caring for a chronic disease strains the food budget even more, creating a cycle that increases the risk that the person's health will get worse, and the food budget will continue to shrink. The division seeks to improve access to adequate, nutritious foods through partnerships with organizations that provide food access resources. Nutrition information, including tips for eating healthy on a budget, were distributed in 45,400 food assistance boxes for seniors in partnership with the Central Alabama Food Bank and the Montgomery Area Food Bank as part of the Commodity Supplemental Food Program. Additionally, staff distributed nutrition and food access information to individuals and families visiting mobile food pantries across the state.
- As an implementing agency for the SNAP Education Program, the NPA Division provides nutrition education to individuals who are eligible for SNAP benefits. Education activities took place in schools, local health departments, and senior nutrition centers where approximately 260 individuals received direct education. In addition, trainings that promote and support healthy wellness policies for students and preschool children were provided to staff from 33 schools and 96 childcare centers across the state. Individuals were also reached with social marketing techniques. A digital media campaign was conducted reaching 2,440 individuals and social marketing efforts reached over 4,700 individuals with online nutrition information and resources. In partnership with the Alabama Women's Commission, a texting campaign that shared nutrition and physical activity resources was completed with over 2,100 subscribers.

Cardiovascular Health Program

Heart disease is the leading cause of death and stroke is the fifth leading cause in Alabama. Hypertension is a major risk factor for cardiovascular disease. According to the Behavioral Risk Factor Surveillance System's (BRFSS) 2021 Data Report, 42.7 percent of Alabama adults surveyed said they have been told by their doctors they have high blood pressure or hypertension compared to the 32.4 percent U.S. average. Another leading risk factor is high cholesterol. Forty percent of Alabamians have been told their levels were high, above the 35.7 percent U.S. average.

The Alabama Cardiovascular Health Program, funded through CDC, worked on six strategies over the year to help prevent and control cardiovascular disease in Alabamians.

Program Accomplishments:

- Provided self-monitoring blood pressure stations around the state by partnering with local senior centers, libraries, and other local community sites.
- Collaborated with the University of Alabama-University Medical Center and the Mobile County Health Department to provide a lifestyle modification program to treat hypertension and high blood cholesterol.

- Partnered with the UAB Preventive Medicine Department to continue piloting a heart health practice facilitation intervention in family medicine clinics. The primary outcomes are related to blood pressure management in patients with hypertension.

Diabetes Program

The Alabama Diabetes Program focuses on increasing community access to resources that assist with managing and preventing diabetes. Diabetes Self-Management Education and Support (DSMES) helps people with diabetes to implement and sustain behaviors important to managing the condition on an ongoing basis. The CDC Diabetes Prevention Program (DPP) lifestyle change program is designed to help those with prediabetes and those at risk of developing Type 2 diabetes to prevent or delay the onset of Type 2 diabetes through healthy eating and physical activity. Alabama has 33 CDC-recognized DPP organizations and 42 accredited/recognized DSMES sites.

Support to Samford University's McWhorter School of Pharmacy (MSOP) continued this year, allowing Samford to implement quality improvement activities and sustainability measures within its DSMES training for pharmacists and dietitians. MSOP had a total of four practices (two dietitians and two pharmacists) complete the training in 2022, with one of those practices located in a county without existing accredited DSMES services. As a result of this training, three of the practices have pending accreditation, and one of the practices achieved accreditation in February 2022.

Additional support for DSMES programs was provided through the Association of Diabetes Care and Education Specialists. This support included training and learning opportunities around billing and reimbursement, as well as webinars around the important roles that social workers and pharmacists have in supporting diabetes programs.

The Alabama Diabetes Program awarded \$105,000 in mini-grants to two organizations to implement DPP at three or more places of employment. The funding also helped the awardees to present to employers the advantages of having DPP as covered benefits and mechanisms to achieve coverage.

Outreach efforts continued through District Outreach Coordinators (DOCs) in the Northeastern, West Central, Southeastern, and Southwestern districts. DOCs are social workers supported through joint funding for Cardiovascular Health and Diabetes. These individuals contacted and provided support to local DSMES and DPPs. Additionally, the DOCs began involvement in the National Association of Chronic Disease Directors Employer Learning Collaborative to learn about coverage of the National DPP and to seek potential employers in the state which may be interested in and/or capable of covering the program.

Pharmacy

- The Pharmacy Division is responsible for the Prescription Drug Monitoring Program (PDMP), providing medication information and medication protocol support to county health departments, maintaining the Alabama Controlled Substances List, and assisting CEP in disasters. In addition, the division collaborates with other state agencies and community groups to provide education and prevention activities in efforts to reduce drug

overdose deaths in Alabama. The division remains active in providing guidance for COVID-19 pharmaceutical treatments including monoclonal antibodies and antiviral medications that have emergency use authorization approval by FDA. Pharmacy staff also assist in managing inventory of mpox treatments at designated facilities throughout the state.

- Overdose Data to Action grant activities continued in 2022 with data-directed prevention activities, collaborating with other state agencies and community groups to provide education and prevention activities in local communities, education for healthcare professionals, and resources for harm reduction strategies.
- PDMP staff are active members of the Opioid Overdose and Addiction Council and three of its subcommittees: Rescue, Prescriber/Dispenser, and Data. Staff collaborate with the Alabama Department of Mental Health and Jefferson County Department of Health to distribute naloxone, a medication that reverses an opioid overdose, to first responders and people at risk for an overdose.
- Improvements continue to be made to the PDMP database. Physician offices, pharmacies, and health systems continue to request accessing PDMP data through their electronic health record or pharmacy management software. Grant funding through the Bureau of Justice Assistance allowed the program to provide PDMP education to healthcare professionals in small groups with one-on-one assistance if needed.

Primary Care and Rural Health

The Office of Primary Care and Rural Health (OPCRH) administers programs to improve healthcare access and quality in rural and medically underserved communities. Currently, 63 of Alabama's 67 counties have areas designated as being medically underserved. These underserved areas have a high prevalence of healthcare issues, including chronic diseases such as diabetes, hypertension, heart disease, and other challenges such as a high rate of substance abuse. OPCRH employs several programs and works closely with partners such as the Alabama Rural Health Association, Alabama Hospital Association, Alabama Primary Health Care Association, and departmental bureaus to address these health issues. Some of the major initiatives in OPCRH are recruitment and retention of healthcare professionals, and technical assistance to assist 42 small, rural hospitals and health providers in transitioning to a new value-based healthcare system.

OPCRH utilizes a national, web-based recruitment system called National Rural Recruitment and Retention Network to recruit into medically underserved areas. During FY2022, approximately 2,119 primary care practitioners were referred to rural hospitals and clinics in Alabama. Another recruitment program is the National Health Service Corps (NHSC), which has both scholarship and loan repayment components.

NHSC covers a wide array of health professionals, from physicians, dentists, and nurses, to behavioral health professionals. Currently, there are 105 Alabama participants in the NHSC Program. These programs are supplemented by a J-1 Visa Waiver Program, which enables placement of foreign-trained physicians in return for 3 years

of service in medically underserved areas. Currently, there are 78 healthcare providers delivering medical care to rural and medically underserved Alabamians under the J-1 Visa Waiver Program. OPCRH assists communities in establishing Centers for Medicare and Medicaid Services-certified rural health clinics. Over the past year, OPCRH provided technical assistance to 134 rural health clinics.

OPCRH collaborates with various entities to address workforce issues essential to improving the health of Alabama residents. One such initiative is the partnership with the UAB Heersink School of Medicine - Huntsville Regional Medical Campus to administer the Alabama Rural Medical Service Awards. This state-funded program incentivizes primary care physicians and family practice nurse practitioners to practice full time in rural Alabama.

In 2022, OPCRH worked to update the Health Professional Shortage Area designations. These areas determine eligibility for certain federal grants as well as eligibility for the NHSC Program and the J-1 Visa Waiver Program. Alabama's 42 small, rural hospitals are also assisted under federal grants administered by OPCRH which target improvement of operational efficiency, quality, and hospital sustainability. COVID-19 continued to present many financial and operation challenges to Alabama's rural hospitals, including an unprecedented level of hospital staff turnover. OPCRH continued to distribute funding to hospitals from the Health Resources and Services Administration through the American Rescue Plan. These funds target COVID-19 testing and mitigation efforts. OPCRH continues to work closely with the Alabama Hospital Association to provide relief and support to Alabama's small rural hospitals.

Wellness

Public Education Employees' Health Insurance Plan (PEEHIP) Wellness Program

PEEHIP Wellness is a joint project of the department and PEEHIP. In FY2015, PEEHIP mandated that members be screened or pay more for their medical insurance. Members had the opportunity to get a screening without being penalized. During FY2022, department nurses performed 73,127 screenings at the worksite and healthcare providers conducted an additional 37,436 screenings. During this same time frame, 34,586 received an influenza vaccine.

State Employees Insurance Board (SEIB) Wellness Program

During FY2022, 6,527 state employees were screened by Wellness Program staff for the SEIB. A total of 2,544 SEIB employees received an influenza vaccine.

Local Government Health Insurance Board (LGHIB) Wellness Program

During FY2022, 77 local employees were screened by Wellness Program staff for LGHIB. A total of 1,900 LGHIB employees received an influenza vaccine. The Wellness Program has had a contractual agreement with LGHIB since 2017.

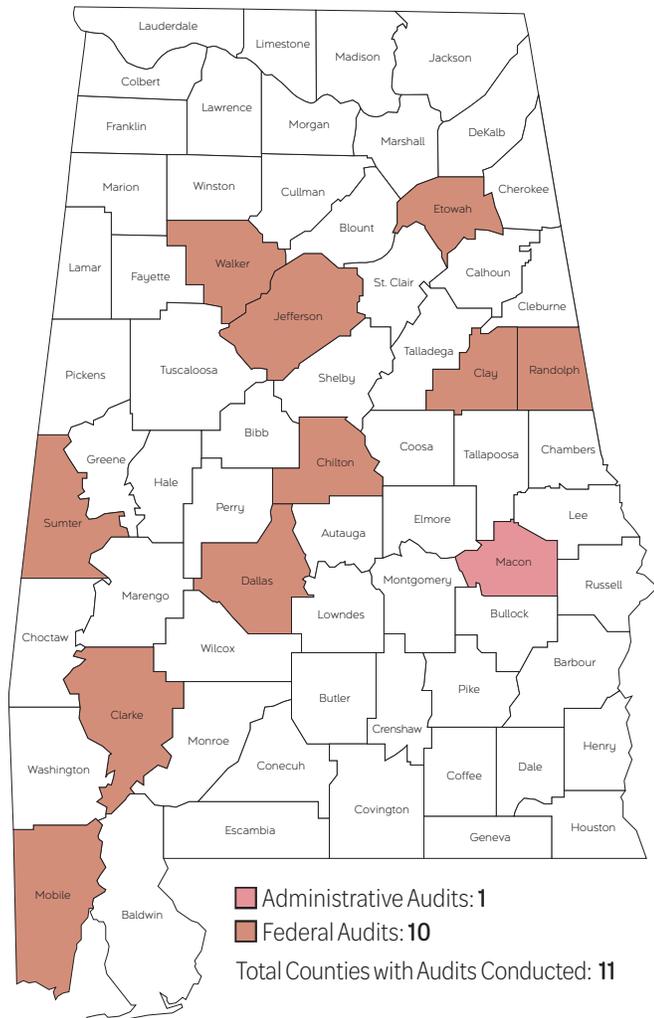
Also, during 2022 the Wellness Entry Login Link (WELL) System was implemented statewide. This is a web-based system designed to reduce the need for paper. The Wellness Program has experienced much success with the WELL System.

Office of Program Integrity

The Office of Program Integrity is an independent appraisal arm of the department. The office serves the State Health Officer to provide assurances regarding the integrity of the department's financial systems, compliance with federal requirements, and compliance with applicable state laws and regulations. The office also serves as a consultant for the programs, services, and functions of the department.

The primary mission of the office is to assist directors, managers, and administrators in effectively discharging their duties by reviewing various activities and functions within the department,

Figure 63. County Health Department Audits, FY2022



presenting reports on deficiencies, and providing recommendations for corrective actions concerning those activities.

The office resumed its mission of objectively evaluating county health departments and Central Office units during 2022 in financial and administrative activities and federal compliance. With the influx of federal funding to assist with the COVID-19 response, the office enhanced the efforts around subrecipient monitoring and compliance. Like other offices, the Office of Program Integrity experienced a critical staffing shortage during 2022. While the minimum federal audit requirements were met, other critical areas were not reviewed.

Figure 64. Special Reviews and Consulting Activities, FY2022

SAFE (Security for Alabama Funds Enhancement) Program Compliance Monitoring	
160 separate accounts	\$46,555,540.59
Subrecipient Compliance and Monitoring	
Imprest Account Monitoring	
Monthly review of bank statements and fund balance reconciliations	
65 accounts	\$827,000.00

Office of Radiation Control

The mission of the Office of Radiation Control is to protect the public and occupationally exposed workers from unnecessary exposure to ionizing radiation. This is accomplished by registering, licensing, and inspecting the day-to-day use of ionizing radiation in the state of Alabama; working with registrants and licensees to assist them in developing and implementing programs to maintain radiation doses as low as reasonably achievable; performing routine monitoring of radioactivity in the environment; preparing and responding to incidents involving nuclear and radioactive material at the two nuclear power plants and radioactive material licensees in the state; and conducting formal public and professional educational programs.

Notable Achievements for FY2022

Radioactive Materials Program: The office operates under an agreement with the U.S. Nuclear Regulatory Commission (NRC), and Alabama is one of 39 Agreement States. Radioactive material can be possessed and used under a general license or specific license by entities within Alabama. There are 190 general licensees and 324 specific licensees using radioactive material in Alabama. During this period, the office conducted a total of 111 inspections of radioactive material licensees. Additionally, the office issued radioactive material licenses to 5 new applicants and processed 296 amendment requests. As an Agreement State, the program is subject to periodic reviews under NRC's Integrated Materials Performance Evaluation Program (IMPEP). The next scheduled IMPEP review will be in 2023.

Industrial Radiographer Certification Program: The office provides a service to certify industrial radiographers using radioactive material and X-ray machines in radiation safety. The office evaluates the individual's classroom and on-the-job training and tests the individual's knowledge with a 125-question exam. If individuals pass the exam and their training is complete, they are issued a certification card that allows them to work in Alabama as an industrial radiographer. For 2022, 78 applications were submitted, and 71 individuals were issued certification cards. Recertification is required every 5 years by retaking the exam.

Medical X-Ray and Particle Accelerators: The office registers and inspects users of medical X-ray equipment. Staff conducted 961 routine inspections of medical X-ray facilities during the period. This included 137 inspections of mammography facilities under the Mammography Quality Standards Act. During this period, 241 shielding plans for X-ray facilities were evaluated by staff. Additionally, the office registers and inspects particle accelerators. There are 47 registrants of particle accelerators that include linear

and proton accelerators used for cancer treatments, and cyclotrons used for radiopharmaceutical production. The office registered two new particle accelerator registrants in this period. During this period, seven particle accelerator registrants were inspected, and 39 amendment requests were processed.

Non-Medical X-Ray: The office registers and inspects users of non-medical X-ray equipment, including X-ray machines used for analytical, gauging, baggage X-ray, whole body scanning, non-destructive testing, and research. There are 391 facilities registered to use non-medical X-ray equipment. During this period, 27 new facilities were registered, 140 registration amendments were issued, and 31 facilities were inspected.

Emergency Planning: The office provided radiation safety and emergency response training to 528 individuals during this period, both in person and online. Those receiving training included individuals from the department, Alabama Emergency Management Agency, county emergency management agencies, hospitals, EMS, and police, fire, and sheriff's departments around Alabama's two nuclear power plants. The office supplies approximately 1,510 thermoluminescent dosimeters (TLDs) to first responders in the event of an off-site incident at one of the two nuclear power plants. These TLDs measure the amount of radiation exposure an individual may receive during an incident and are exchanged annually. During this period, the office successfully demonstrated one FEMA-evaluated plume-phase nuclear power plant exercise. Additionally, the EMTs and hospital medical personnel in Lauderdale, Lawrence, Limestone, Madison, and Morgan counties were trained on techniques to handle a contaminated patient and were able to successfully demonstrate one FEMA-evaluated medical service drill.

Environmental: The office continues to collect ambient, air, water, soil, and vegetation samples from areas surrounding certain radioactive material licensees and the two nuclear power plants located in Alabama to confirm that any releases of radioactive material are within regulatory limits. During this period, 40 water samples, 28 vegetation samples, 364 daily air samples, and 48 weekly air samples were collected and analyzed for radioactive concentration. During this period, 85 quarterly reports of routine ambient radioactive exposure testing were received.

Waste Isolation Pilot Plant (WIPP): The WIPP facility, located near Carlsbad, New Mexico, is the only repository for the disposal of nuclear waste known as transuranic waste. This transuranic waste is shipped from facilities throughout the United States and transported on predetermined routes and monitored via GPS tracking. The routes include Interstates 59 and 20, traveling

through 10 corridor counties in Alabama. Through coordination with the Alabama Emergency Management Agency, the Radiation Control employees equip and train first responders in the WIPP corridor counties to respond in case of an accident or incident involving a WIPP shipment.

Radon: Through continued outreach opportunities and through the radon website, the office encourages citizens in Alabama to test their homes. The office responds to requests for information through phone calls and e-mails. During this period, the office responded to 446 e-mails and phone calls, with 5,509 radon test kits provided through the web site.

County Health Department Services

Public Health services in Alabama are primarily delivered through county health departments. Larger counties and counties with specific needs have more than one county health department location. A wide variety of services is provided at county health departments, as well as valuable information.

Typical services and information include the following:

- Alabama Breast and Cervical Cancer Early Detection Program
- Bio Monitoring Services
- Birth, Death, Marriage, and Divorce Certificates
- Cancer Detection
- Child Health
- Children's Health Insurance Program
- COVID-19 Testing and Vaccinations
- Dental Services/Health Education and Community Fluoridation Programs
- Diabetes
- Disease Surveillance and Outbreak Investigations
- Family Planning
- Food and Lodging Protection
- HIV Prevention and Care
- Home Care Services
- Immunization
- Insect and Animal Nuisances That Can Transmit Disease to Humans
- Laboratory
- Maternity
- Nursing Services
- Nutrition Services
- Onsite Sewage Disposal Systems
- Sexually Transmitted Diseases
- Solid Waste
- Telehealth
- Tuberculosis
- Water Supply in Individual Residential Wells
- Women, Infants, and Children

Public Health Districts Map

East Central District

Tim Hatch, District Administrator
 3060 Mobile Highway
 Montgomery, AL 36108
 (334) 293-6400
 James Hardin, Assistant District Administrator
 1801 Corporate Drive
 Opelika, AL 36801
 (334) 745-5765

Jefferson County

Mark E. Wilson, M.D., County Health Officer
 David Hicks, D.O., M.P.H., Deputy Health Officer
 1400 Sixth Ave. S.
 Birmingham, AL 35233
 (205) 933-9110

Mobile County

Kevin Philip Michaels, M.D., M.P.H., F.A.C.O.E.M.
 County Health Officer
 251 N. Bayou St.
 Mobile, AL 36603
 (251) 690-8827

Northeastern District

Mary Gomillion, District Administrator
 Mark Johnson, Assistant District Administrator
 709 E. Broad St.
 Gadsden, AL 35903
 (256) 547-6311

Northern District

Judy Smith, District Administrator
 Michael Glenn, Assistant District Administrator
 3821 Highway 31 S.
 Decatur, AL 35603
 (256) 340-2113

Southeastern District

Corey Kirkland, District Administrator
 1781 E. Cottonwood Rd.
 Dothan, AL 36301
 (334) 792-9070
 Kyle Odom, Assistant District Administrator
 2841 Neal Metcalf Rd.
 Enterprise, AL 36330
 (334) 347-9574

Southwestern District

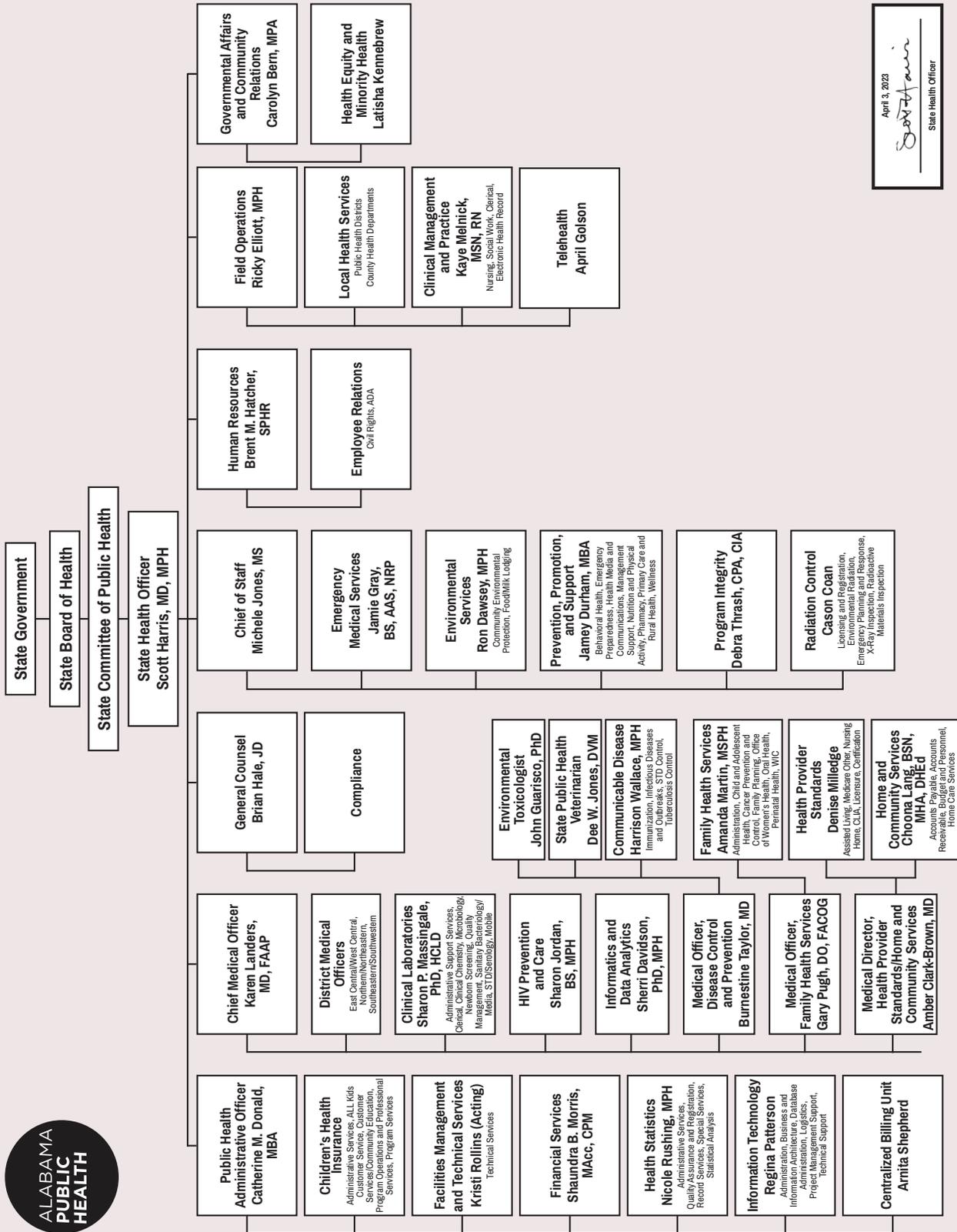
Chad Kent, District Administrator
 1115 Azalea Place
 Brewton, AL 36426
 (251) 947-1645
 Suzanne Terrell, Assistant District Administrator
 303 Industrial Drive
 Linden, AL 36748
 (334) 295-1000

West Central District

Stacey Adams, District Administrator
 Renee Cole, Assistant District Administrator
 2350 Hargrove Rd., E.
 Tuscaloosa, AL 35405
 (205) 554-4500



ADPH Organizational Chart



April 3, 2023

 State Health Officer



The Alabama Department of Public Health Annual Report is published by the Bureau of Prevention, Promotion, and Support.

Chief of Staff

Michele Jones, M.S.

Director, Bureau of Prevention, Promotion, and Support

Jamey Durham, M.B.A.

Director, Public Information

Arrol Sheehan, M.A.

Graphic Designer

Noelle Ahmann

For additional copies of this report, contact:

Alabama Department of Public Health

Bureau of Prevention, Promotion, and Support

The RSA Tower, Suite 910

201 Monroe Street, P.O. Box 303017

Montgomery, AL 36130-3017

334.206.5300

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will be made available upon request.

This document may also be obtained through the Alabama
Department of Public Health's Web site at alabamapublichealth.gov.

